AL-F350BK
AL-F350BKX

JVC

SERVICE MANUAL

FULLY-AUTOMATIC TURNTABLE

AL-F350BK

MODEL No. AL-F350BKX

AL-F350BK: with Cartridge
AL-F350BKX: without Cartridge

Contents

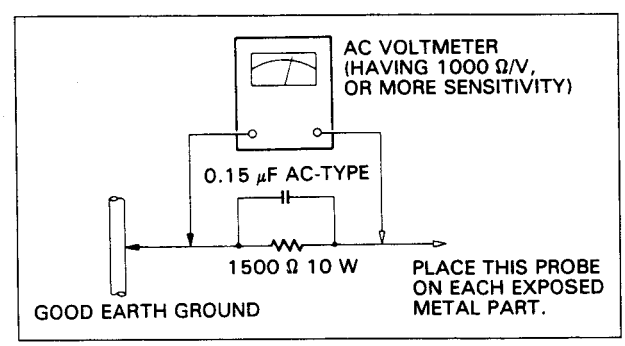
	Page
Safety Precautions	1-2
Instruction Book	
Operation of Automatic Mechanism	1-3
■ Start/Stop Mechanism	1-3
■ Lead-in Mechanism	1-4
■ Change Cycle Start Mechanism	1-4
Description of Technology	1-5
■ Defection of Presence/Absence of Record and Size Select Circuit	1-5
Adjustments	1-5
■ Tonearm Elevator-height Adjustment	1-5
■ Lead-out Adjustment	1-5
■ Lead-in Adjustment	1-6
■ Speed Adjustment	1-6
■ Pin Function of Microcomputer (μPD 7566CS-052)	1-7
Block Diagram	1-8
Trouble Shooting	1-9
Connection Diagram	1-11
Power Cord Connection in Different Areas	1-12
Schematic Diagram	1-13
Parts List	Separate-volume Insertion
Application Points of Grease	1-14

This manual combines two single volumes; Service manual and Parts list.

No. 2958
Feb. 1987

Safety Precautions

1. The design of this product contains special hardware, many circuits and components specially for safety purposes.
   For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in Service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and/or the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.
   When service is required, the original lead routing and dress should be observed, and they should be confirmed to be returned to normal, after re-assembling.
5. Leakage current check
   (Safety for electrical shock hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the Products (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mV AC (r.m.s.).
   - Alternate check method.
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1500 Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



CHECK THE VOLTAGE SELECTOR'S SETTING
(Except for U.S.A., Canada, Australia, U.K. and Continental Europe.)
Before inserting the power plug, please check that the voltage selector's setting corresponds with the line voltage in your area. If it doesn't, be sure to reset the voltage selector before operating this equipment. The voltage selector may be located on the rear or bottom of the unit, or underneath the platter.
CAUTION: Before setting the voltage selector to proper voltage, disconnect the power plug.

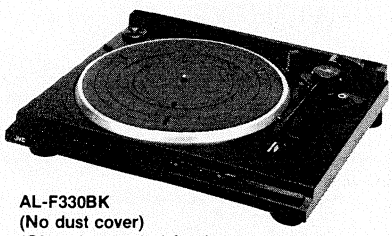
AL-F350BK
AL-F350BKX

JVC Instructions

FULLY-AUTOMATIC TURNTABLE

AL-F330BK
AL-F350BK/AL-F350BKX

BEDIENUNGSANLEITUNG: VOLLAUTOMATISCHER PLATTENSPIELER
MANUEL D'INSTRUCTIONS: PLATINE TOURNE-DISQUE ENTIEREMENT AUTOMATIQUE
GEBRUIKSAANWIJZING: VOL-AUTOMATISCHE DRAAITAFEL
MANUAL DE INSTRUCCIONES: TOCADISCOS TOTALMENTE AUTOMATICO



AL-F330BK
(No dust cover)
(Ohne Staubschutzhaube)
(pas de couvercle anti-poussière)
(zonder stofkap)
(Sin tapa)

AL-F350BK

AL-F350BKX
(No cartridge)
(Kein Tonabnehmer)
(Pas de cartouche)
(Geen element)
(Sin cartucho)

The AL-F330BK is not provided with dust cover.
Modellausführung AL-F330BK komt ohne Staubdeckel
Le modèle AL-F330BK n'est pas fourni avec couvercle anti-poussière
Het model AL-F330BK is niet voorzien van een stofdeksel
El modelo AL-F330BK no esta proveido con tapa contra polvo

COMPU LINK Component

For Customer Use:
Enter below the Model No. and Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

E30580-1376A

(No. 2958)

AL-F350BK
AL-F350BKX

IMPORTANT (In the United Kingdom)
Mains Supply (AC 240V ∿, 50 Hz only)

IMPORTANT

Do not make any connection to the Larger Terminal coded E or Green. The wires in the mains lead are coloured in accordance with following code:

Blue to N(Neutral) or Black
Brown to L(Live) or Red

If these colours do not correspond with the terminal identifications of your plug, connect as follows:
Blue wire to terminal coded N(Neutral) or coloured Black.
Brown wire to terminal coded L(Live) or coloured Red.
If in doubt — consult a competent electrician.

THIS UNIT IS PRODUCED TO COMPLY WITH DIRECTIVE 82/499/EEC.

DIESES GERAT ENTSPRICHT EEC-RICHTLINIE 82/499.

CET APPAREIL A ETE FABRIQUE POUR ETRE CONFORME A LA DIRECTIVE CEE NUMERO 82/499.

BEMAERK: I stilling OFF er apparatet stadig forbundet med lysnettet hvis det ønskes fuldstændig afbrudt skal netledningen trækkes ud.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

ACHTUNG

Zur Verhinderung von elektrischen Schlägen, Brandgefahr usw.:
1. Keine Schrauben lösen oder Abdeckungen entfernen und nicht das Gehäuse öffnen.
2. Dieses Gerät weder Regen noch Feuchtigkeit aussetzen.

COMPU LINK
Control System

COMPU LINK is a totally new technology developed by JVC — which provides truly amazing operating convenience. Details are described on page 3.

COMPU LINK ist eine von JVC entwickelte völlig neue Technik, womit die Bedienung zum erstaunlichen Kinderspiel wird. Einzelheiten dazu finden Sie auf Seite 3.

Thank you for purchasing this JVC product.
Before you begin operating this unit, please read the instructions carefully to be sure you get the best possible performance.
If you have any question, consult your JVC dealer.

Note:
●No cartridge is provided with the AL-F350BKX.

Vielen Dank für den Kauf dieses JVC-Produckts.
Bitte lesen Sie diese Bedienungsanleitung sorgfältig, bevor Sie dieses Gerät in Betrieb nehmen, um die beste Leistung zu erhalten.
Falls Sie Fragen haben, wenden Sie sich bitte an Ihren JVC-Fachhändler.

Hinweis:
●Der AL-F350BKX wird ohne Tonabnehmer geliefert.

CONTENTS

Important 1
COMPU LINK control system 3
Preparations 5
Cartridge mounting 5
Connection to your amplifier or receiver 5
Stylus replacement 7
Adjustments 7
Description and functions 9
Specifications 13

INHALT

Wichtig 1
COMPU LINK bedienungssystem 3
Vorbereitungen 5
Anbringung des Tonabnehmers 5
Anschluß an den verstaker order receiver 5
Auswechseln der Nadel 7
Einstellungen 7
Beschreibung und Funktionen 9
Technische Daten 13

IMPORTANT

1. Installation
- Select a place which is level, dry and neither too cold nor too hot (between 5°C (41°F) and 40°C (104°F).
- Avoid a dusty place or a place subject to vibrations.

2. Power
- When unplugging from the wall outlet, always pull the plug, not the power cord.

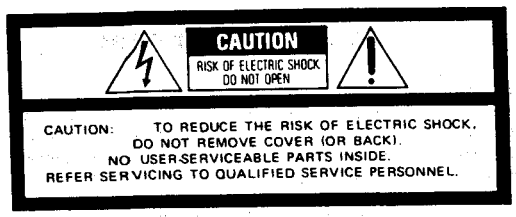
3. Malfunctions, etc.
- Do not insert any foreign object into the turntable.

WICHTIG

1. Aufstellung
- Einen ebenen, trockenen und nicht zu kalten oder warmen Aufstellungsort wählen (zwischen 5°C und 40°C).
- Staubeinwirkung oder Vibrationen ausgesetzte Orte meiden.

2. Spannungsversorgung
- Das Netzkabel stets am Stecker, nie am Kabel selbst abziehen.

3. Fehlfunktionen etc.
- Keine Gegenstände in den Plattenspieler einführen.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION (For U.S.A.)

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna;
Relocate this equipment with respect to the receiver;
Move this equipment away from the receiver;
Plug this equipment into a different outlet so that this equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

ATTENTION

Afin d'éviter tout risque d'électrocution, d'incendie etc.:

1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

COMPU LINK est un système basé sur une technologie entièrement nouvelle développée par JVC — il facilité de manière étonnante l'utilisation. Il est décrit en détail page 4.

VOORZICHTIG

Ter vermindering van gevaar voor brand, elektrische schokken, enz.:

1. Verwijder geen schroeven, panelen of de behuizing.
2. Stel dit toestel niet bloot aan regen of vocht.

COMPU LINK is een totaal nieuwe, door JVC ontwikkelde technologie. Dit systeem biedt een ongekend bedieningsgemak. Zie blz. 4 voor verdere details.

PRECAUCION

Para reducir riesgos de electrochoques, incendio, etc.:

1. No extraiga los tornillos, cubiertas o la caja.
2. No exponga este aparato a la lluvia o humedad.

COMPU LINK es una technología totalmente innovadora desarrollada por JVC, la cual ofrece facilidades de operación realmente asombrosas. Sus detalles se describen en la página 4.

Tous nos compliments pour vous être procuré cet appareil de JVC.
Pour que vous puissiez obtenir les meilleures performances possibles, nous vous recommandons de lire attentivement la présente notice d'emploi avant de commencer à utiliser votre nouvel appareil.
En cas de question, consultez votre revendeur JVC.

Remarque:
●La AL-F350BKX est livrée sans cellule.

Dank U voor het in dit JVC produkt gestelde vertrouwen.
Lees deze gebruiksaanwijzing vóór ingebruikname van dit toestel aandachtig door ter verkrijging van de beste prestaties.
Raadpleeg Uw JVC dealer in geval van twijfel.

Opmerking:
●Bij AL-F350BKX wordt geen element gelevert.

Deseamos, antes que nada, agradecerle por la compra de unos de los productos de JVC.
Antes de poner esta unidad en operación, asegúrese de leer estas instrucciones para, de tal modo, obtener el mayor rendimiento posible.
Cualquier duda o pregunta, sírvase dirigirse a su concesionario JVC.

Nota:
●En el modelo AL-F350BKX, no se suministra la cápsula.

SOMMAIRE

Important 2
System de commande COMPU LINK 4
Préparatifs 6
Mise en place de la cellule 6
Raccordement à votre amplificateur ou à votre ampli-tuner 6
Remplacement de la pointe de lecture 8
Réglages 8
Description et fonctions 10
Caractéristiques techniques 14

INHOUDSOPGAVE

Belangrijk 2
COMPU LINK bedieningssysteem 4
Voorbereidingen 6
Montage van het element 6
Aansluiting op de versterker of de tuner/versterker 6
Vervanging van de naald 8
Instellingen 8
Beschrijving en functies 10
Technische gegevens 14

INDICE

Importante 2
Systema de control COMPU LINK 4
Preparaciones 6
Montaje de la cápsula 6
Conexión a un amplificador o receptor 6
Cambio de la aguja 8
Ajuste 8
Descripciones y funciones 10
Especificaciones 14

IMPORTANT

1. Installation
●Choisir un endroit plan sec et ni trop froid, ni trop chaud (entre 5°C et 40°C).
●Eviter les endroits poussiéreux ou sujets à des vibrations.
2. Alimentation
●Lors du débranchement de la prise, toujours tirer sur celle-ci et non sur le cordon.
3. Mauvais fonctionnements etc.
●Ne pas insérer d'objets métalliques dans la platine.

BELANGRIJK

1. Inbouw
●Kies een plaats uit die waterpas, droog en niet te koud of te heet is (tussen 5°C en 40°C).
●Vermijd plaatsing op een stoffige plaats of een aan trillingen blootgestelde plaats.
2. Voeding
●Trek altijd aan de stekker, nooit aan het snoer, wanneer deze uit het stopkontakt verwijderd wordt.
3. Defekten, enz.
●Steek geen vreemde voorwerpen in de draaitafel.

IMPORTANTE

1. Instalación
●Elija un lugar nivelado, seco y no demasiado frío ni demasiado caluroso (entre 5°C y 40°C).
●Evite los lugares polvorientos o sometidos a vibraciones.
2. Cordón de alimentación
●Al desenchufar el cordón del tomacorriente, tire siempre de la clavija y no del cordón mismo.
3. Desperfectos, etc.
●No inserte ningún objeto extraño dentro del tocadiscos.

■ COMPU LINK CONTROL SYSTEM

COMPU LINK Control System is a computer-linked system in which the computer operates on individual COMPU LINK Components* of an audio system to effect control. This computerized operating system provides one-touch selection of all system components without requiring any "host" component. This system also offers the convenience of synchronized recording from a compact disc/record to tape. The following procedures are required to bring these features into operation:

* The COMPU LINK Component is required to meet the following requirements:
  - Manufactured by JVC.
  - Equipped with COMPU LINK-1/SYNCHRO terminals which are so designed that all system sources synchronously operate with the provided remote wire.

Automatic Source Selection

Connect the provided remote wire to all source components, and you can switch sources and play a selected source automatically at the simple one-touch of the source selector button of the amplifier or receiver. You can also use the activation button of any desired source for this purpose. When the sources have been switched over, the previous source will stop playing within about five seconds.

Notes:

- **Ensure that the COMPU LINK-1/SYNCHRO terminals of individual components are connected with the provided remote wires. Also be sure to read the instruction manual for each component very carefully.**
- **The source is locked to the phono or CD position during synchronized recording to avoid accidental stops or switch-over to another component. To switch over the components, cancel synchronized recording first.**

Synchronized Recording

Perform the synchronized recording as follows:

(1) Set the cassette deck to the REC/PAUSE mode in accordance with the procedures in the instruction manual.
(2) When synchronously recording with a turntable, press the START button of the turntable. By so doing, the cassette deck is placed in the record mode and the synchronized recording can be made possible.

Notes:

- **Synchronized recording stops automatically when the turntable stops playing.**
- **To cancel synchronized recording, press the START/STOP button of the turntable or the STOP button of cassette deck.**
- **When the REC PAUSE mode is set by pressing PAUSE button after pressing the REC and PLAY buttons simultaneously, synchronized recording is not possible. For details, refer to the instruction manual of the cassette deck.**

■ COMPU LINK BEDIENUNGSSYSTEM

COMPU LINK Bedienungssystem ist ein Computerverbundenes System, wo der Computer einzelne COMPU LINK Komponenten einer Audio-Anlage steuert. Dieses Computer-gesteuerte Betriebssystem macht sämtliche Anlagenkomponenten mit einem einzigen Tastendruck verfügbar, ohne daß ein "zentrales" Bauteil vonnöten wäre. Die Einrichtung bietet darüber hinaus die Möglichkeit, Kompaktplatten oder Schallplatten synchron auf Band zu überspielen. Diese Fähigkeiten lassen sich wie folgend steuern:

* COMPU LINK Komponenten müssen folgende Bedingungen erfüllen:
  - Hergestellt von JVC.
  - Ausstattung mit COMPU LINK-1/SYNCHRO-Buchsen, deren Konstruktion sämtliche Anlagentonquellen über das mitgelieferte Verbindungskabel synchron funktionieren läßt.

Automatische Quellenwahl

Das mitgelieferte Verbindungskabel an sämtliche Anlagenbauteile anschließen. Die Tonquellen lassen sich dann umschalten und mit einem einzigen Druck auf die Quellenwahltaste des Verstärkers oder Receivers nach Belieben automatisch betätigen. Zu diesem Zweck können Sie aber auch die Betriebstaste des gewünschten Tonquellenbauteils drücken. Nach dem Umschalten der Tonquelle wird der Betrieb der vorigen Tonquelle innerhalb von fünf Sekunden abgebrochen.

Hinweise:

- **Versichern Sie sich, daß die COMPU LINK-1/SYNCHRO-Buchsen einzelner Anlagenteile mit den vorgesehenen Fernbedienungskabeln versehen sind. Ebenfalls nicht versäumen, die Bedienungsanleitungen der einzelnen Geräte sorgfältig durchzulesen.**
- **Die Aufnahmequelle ist während der Synchronaufnahme auf die CD- oder Phono-Position festgeschaltet, um ungewolltes Unterbrechen oder Umschalten auf eine andere Anlagenkomponente zu verhindern. Vor dem Umschalten auf ein anderes Gerät ist die Synchronaufnahme daher zuerst abzuschalten.**

Synchronisierte Aufnahme

Führen Sie synchrongeschaltete Aufnahmen wie folgend durch:

(1) Schalten Sie das Cassettendeck entsprechend den Angaben in der Bedienungsanleitung auf Betriebszustand REC/PAUSE.
(2) Bei Synchronaufnahmen von einem Plattenspieler drückt man die START-Taste des Plattenspielers. Dadurch wird das Cassettendeck auf Aufnahmebereitschaft geschaltet, d.h. nun läßt sich eine Synchronaufnahme machen.

Hinweise:

- **Die Synchronaufnahme wird automatisch abgebrochen, wenn sich der Plattenspieler abschaltet.**
- **Zum Ausschalten einer Synchronaufnahme die START/STOP-Taste am Plattenspieler oder die STOP-Taste am Cassettendeck drücken.**
- **Wenn man nach gleichzeitigem Betätigen der Tasten REC und PLAY auf Betrieb REC/PAUSE schaltet, indem man die PAUSE-Taste drückt, dann ist keine synchrone Aufnahme möglich. Einzelheiten dazu entnehmen Sie bitte der Bedienungsanleitung des Cassettendecks.**

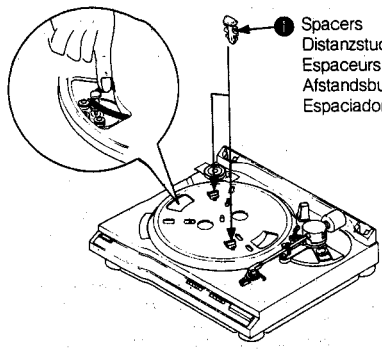


Fig. 1
Abb. 1
Aft. 1

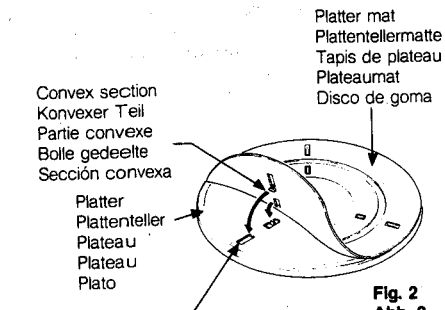


Fig. 2
Abb. 2
Afb. 2

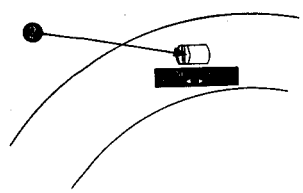


Fig. 3
Abb. 3
Afb. 3

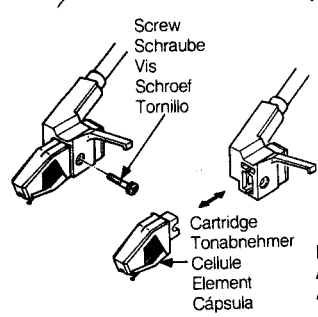


Fig. 4
Abb. 4
Afb. 4

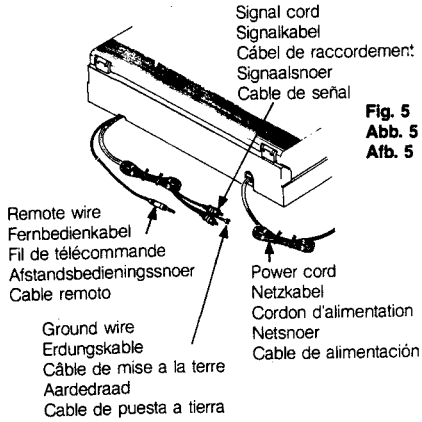


Fig. 5
Abb. 5
Afb. 5

PREPARATIONS

Note:
●Do not connect the power cord to the AC outlet until all preparations are completed.

Unpacking and setting up (Figs. 1—3)

1. To remove the two spacers ❶ holding the platter, turn them counterclockwise (↶). After removing these spacers, cover the platter with a mat provided. Keep these spacers for repacking the turntable.
2. Set the voltage selector ❷* to your local line voltage.
   When this equipment is used in an area where the supply voltage is different from the preset voltage, reset the voltage selector to the correct position
   *Not provided on units for the U.S.A., Canada, U.K., Australia and Continental Europe.
3. Locate the drive belt underneath the platter and run it round the motor pulley.

Note:
• When performing this, place the provided platter mat on the platter with its lumps put on the slits for detecting record sizes.

CARTRIDGE MOUNTING

This turntable has an integrated tonearm using a T4P cartridge.

1. Remove the cartridge fixing screw.
2. Pull the cartridge forward as shown in Fig. 4.
3. Remount the cartridge as shown in Fig. 4.
4. Fix the cartridge fixing screw securely.

Note:
●When replacing the cartridge, be sure to use the cartridge fixing screw originally provided to obtain the optimum tracking force.

CONNECTING TO YOUR AMPLIFIER OR RECEIVER (FIG. 5).

1. Connect the signal cords to the PHONO terminals on the rear panel of your amplifier or receiver.
   The white plug is for the L (left) channel and the red plug for the R (right) channel. Connect the ground wire to the GND terminal.
2. When using a COMPU LINK Control Component (amplifier or receiver), connect the remote wire to the SYNCHRO terminals.
3. Connect the power cord to a convenient AC outlet.

VORBEREITUNGEN

Hinweis:
●Schließen Sie das Netkabel erst an eine Steckdose an, wenn alle Vorbereitungen abgeschlossen sind.

Auspacken und aufstellen (Abb. 1—3)

1. Die beiden Distanzstuck ❶, die den Plattenteller halten, durch Drehen entgegen dem Uhrzeigersinn entfernen (↶). Nach dem Entfernen der Distanzstuck die mitgelieferte Matte am Plattenteller anbringen. Die Distanzstuck für eine eventuelle Wiederverpackung des Plattenspielers aufheben.
2. Den Spannungswähler ❷* auf die örtliche Netzspannung schalten.
   Wenn die voreingestellte Netzspannung an diesem Gerät nicht mit der tatsächlich vorhandenen übereinstimmt, den Spannungswähler auf den erforderlichen Wert einstellen.
   *Nicht vorhanden an Geräten für die USA, Kanada, Großritannien, Australien und Kontinental-Europa.
3. Den Antriebsriemen der sich unterhalb des Plattentellers befindet um die Riemenscheibe des Motors legen.

Hinweis:
• Damit die Schallplattengröße abgetastet werden kann, ist die mitgelieferte Gummimatte so auf den Plattenteller legen, daß die Vorsprünge in die Schlitze greifen.

ANBRINGUNG DES TONABNEHMERS

Dieser Plattenspieler besitzt einen integrierten Tonarm mit einem Tonabnehmer vom Typ T4P.

1. Die Tonabnehmer-Halteschraube lösen.
2. Den Tonabnehmer wie in Abb. 4 gezeigt nach vorne abziehen.
3. Den Tonabnehmer wie in Abb. 4 gezeigt wieder anbringen.
4. Die Tonabnehmer-Halteschraube wieder fest anziehen.

Hinweis:
●Bei Tonabnehmeraustausch die originale Tonabnehmer-Halteschraube verwenden, um die optimale Auflagekraft beibehalten zu können.

ANSCHLUß AN DEN VERSTÄRKER ORDER RECEIVER (ABB. 5)

1. Schließen Sie die Signalkabel des Plattenspielers an die PHONO-Buchsen Ihres Verstärkers oder Receivers an.
   Der weiße Stecker ist für den linken Kanal (L) und der rote Stecker für den rechten Kanal (R). Massekabel an die GND-Klemme anschließen.
2. Wenn Sie eine COMPU-LINK-gesteuerte Komponente verwenden (Verstärker oder Receiver), dann ist das Fernbedienungskabel an die SYNCHRO-Buchsen anzuschließen.
3. Schließen Sie das Natzkabel an eine Steckdose an.

STYLUS REPLACEMENT

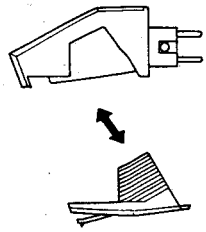


Fig. 6
Abb. 6
Afb. 6

How to replace

1. Pull diagonally downwards the stylus assembly as shown by the arrow in Fig. 6.
2. To install the stylus assembly, push it upwards in the direction of the arrrow.

Notes:

- **Replace the stylus assembly with the stylus cover fitted so as not to damage the stylus tip.**
- **The DT-45 stylus has a normal service life of 800 — 1600 hours; to extend the life of your records, it is recommended that you replace it sooner rather than later.**

AUSWECHSELN DER NADEL

Vorgehensweise

1. Den Nadelträger wie in Abb. 6 gezeigt in Pfeilrichtung schräg nach unten ziehen.
2. Zur Anbringung des Nadelträgers in Pfeilrichtung nach oben drücken.

Hinweise:

- **Um Beschädigungen der Nadel zu vermeiden, den Nadelträger bei angebrachter Nadelschutzkappe austauschen.**
- **Die Betriebsdauer von Nadel DT-45 beträgt im Normalfall 800 bis 1600 Stunden. Zur Schonung Ihrer Schallplatten empfehlen wir, den Nadelwechsel vor Ablauf dieser Zeit durchzuführen.**

Stylus tip
Nadelspitze
Extrémité de la pointe de lecture
Naaldpunt
Punta de la aguja

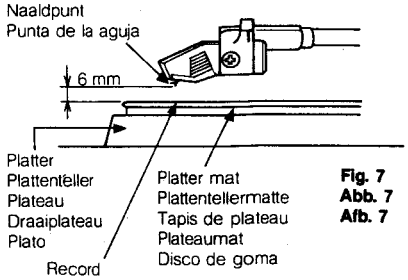


Fig. 7
Abb. 7
Afb. 7

ADJUSTMENTS

Tonearm elevator-height adjustment (Fig. 7 and 8)

The optimum clearance between the stylus tip and the record surface is about 6 mm when the tonearm is resting on the tonearm elevator (with the UP/DOWN knob switched to the UP position). Turning the adjusting screw clockwise lowers the height of the tonearm elevator and turning it counterclockwise increases it. (Fig. 8)

Anti-skating adjustment (Fig. 9)

Turn the anti-skating knob until "1.25" position of the knob points to the index mark.

Use the scale marked • with a conical stylus and the scale marked ● with an elliptical stylus. The AL-F330BK/AL-F350BK is provided with a conical stylus.

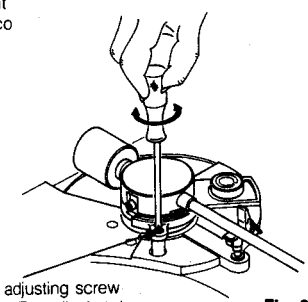
EINSTELLUNGEN

Höheneinstellung des Tonarmlifts (Abb. 7 und 8)

Die optimale Distanz zwischen der Nadelspitze und der Schallplattenoberfläche beträgt etwa 6 mm, wenn der Tonarm auf dem Tonarmlift aufliegt (und der UP/DOWN-knopf auf der UP-Position steht). Durch Drehen der Einstell-schraube in Uhrzeigerrichtung wird die Höhe in Gegenuhrzeigerrichtung vergrößert. (Abb. 8)

Anti-Skating-Einstellung (Abb. 9)

Den Anti-Skating-Regler so einstellen, daß dessen 1,25-Marke mit der Pfeilmarkierung übereinstimmt. Für konische Nadeln die mit • und für elliptische Nadeln die mit ● markierte Skala verwenden. Der AL-F330BK/AL-F350BK ist mit konischer Tonnadel ausgestattet.



Elevator adjusting screw
Tonarmlift-Einstellschraube
Vis de réglage de la hauteur
Instellingsschroef voor de toonarmlift
Tornillo de regulación del elevador

Fig. 8
Abb. 8
Afb. 8

Anti-skating
Antiskating-knopf
Bouton de compensation de la force centripète
Dwarsdruk-kompensator
Perilla de antiempuje lateral

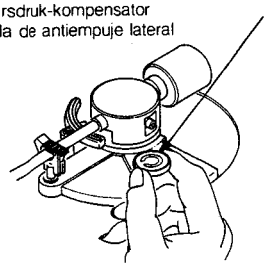


Fig. 9
Abb. 9
Afb. 9

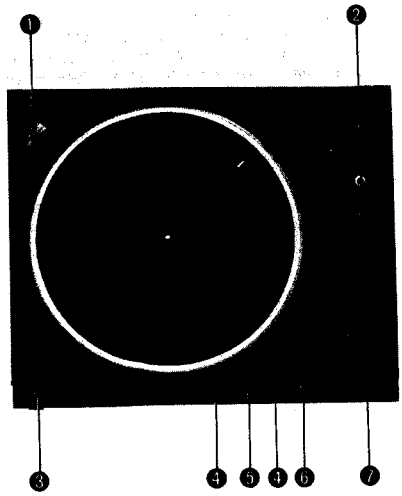


Fig. 10
Abb. 10
Afb. 10

DESCRIPTION AND FUNCTIONS

❶ **EP adapter**
Place the adapter on the center spindle when playing a record having a larger diameter center hole (such as a doughnut record).

❷ **ANTI-SKATING**
This device cancels the centripetal force that pulls the tonearm to the center of the platter. It prevents the stylus tip from skating toward the center of the platter and at the same time eliminates any excessive force on the inner wall of the record groove. Use the scale marked • with a conical stylus and the scale marked ● with an eliptical stylus. Turn the knob to the same number as the tracking force dial.

❸ **POWER switch**
ON (⏏): Press to set to this position to turn the power on; the indicators and the lamp for the size detection sensor will light.
STAND BY (⏻): Press to set to this position to turn the power off.

Note:
• Even when the POWER switch is off, this turntable consumes a small amount of electricity (2.0 watts). It is, therefore, advisable to disconnect the power cord if the turntable is not to be used for a long time.

❹ **SPEED INDICATORS**
When the AUTO SPEED SELECT indicates "NORMAL" ....
When the power is applied to this unit, "33" lights. Playing a 17 cm (45 rpm) record causes "33" to be switched over to "45." However, "33" remains with a 30 cm (33 1/3 rpm) record.
When AUTO SPEED SELECT indicates "INVERSE" ....
When the power is applied to this unit, "45" lights. Playing a 17 cm (33 1/3 rpm) record causes "45" to be switched over to "33." However, "45" remains with a 30 cm (45 rpm) record.

❺ **AUTO SPEED SELECT**
When playing a 30 cm (33 1/3 rpm) or 17 cm (45 rpm) record automatically, set this knob to "NORMAL."
When playing a special record such as 17 cm (33 1/3 rpm) and 30 cm (45 rpm) records, set this knob to "INVERSE."

❻ **CUEING**
This is used to lift or lower the tonearm gently. When you switch it to its UP position, the tonearm will be lifted up, and, when you switch it to its DOWN position, the tonearm will be lowered down gently so that the stylus rests on the record surface.

BESCHREIBUNG UND FUNKTIONEN

❶ **Adapter für Schallplatten mit großem Mittelloch**
Zum Abspielen von Schallplatten mit großem Mittelloch diesen Adapter zuerst auf die Mittelachse aufsetzen.

❷ **Antiskating-Knopf (ANTI-SKATING)**
Diese Einrichtung kompensiert die Zentripedalkraft, die den Tonarm zur Schallplattenmitte zieht. Sie verhindert, daß die Nadelspitze zur Mitte der Schallplatte gezogen wird und einen zu starken Druck auf die innenwand der Schallplattenrille ausübt.
Für konische Nadeln die mit • und für elliptische Nadeln die mit ● markierte Skala verwenden.
Den Knopf auf denselben Wert drehen, auf den der Auflagekraftregler eingestellt ist.

❸ **Netzschalter (POWER)**
ON (⏏): Durch Drücken dieses Schalters wird das Gerät eingeschaltet, die Anzeigen und die Lampe für den Schallplattengröße-Sensor leuchten.
STAND BY (⏻): Durch nochmaliges Drükken dieses Schalters wird das Gerät abgeschaltet.

Hinweis:
• Auch wenn der Netzschalter ausgeschaltet ist, nimmt der Plattenspieler eine geringe Leistung auf (2,0 Watt). Es empfiehlt sich daher, das Netzkabel abzuziehen, wenn der Plattenspieler lange Zeit nicht benutzt wird.

❹ **GESCHWINDIGKEITSANZEIGEN**
Wenn die automatische Geschwindigkeitswahl (AUTO SPEED SELECT) "NORMAL" anzeigt ...
Bei Einschalten des Netzstroms leuchtet "33" auf.
Wenn Sie eine Single-Platte (17 cm Durchmesser=45 U/min) abspielen, schaltet das Gerät automatisch auf "45" um. Die Anzeige "33" bleibt bei einer Langspielplatte (30 cm Durchmesser=33 U/min) allerdings an.
Wenn AUTO SPEED SELECT "INVERSE" anzeigt ...
Bei Einschalten des Netzstroms leuchtet "45" auf.
Wenn Sie eine Schallplatte mit (17 cm Durchmesser und 33 U/min) abspielen, schaltet das Gerät automatisch von "45" auf "33" um. Die Anzeige "45" bleibt bei einer Schallplatte von (30 cm Durchmesser und 45 U/min) allerdings an.

❺ **Automatische Geschwindigkeitswahl (AUTO SPEED SELECT)**
Zum Abspielen einer Schallplatte mit 30 cm Durchmesser (33 U/min) oder 17 cm Durchmesser (45 U/min) sollte diese Taste auf "NORMAL" gestellt sein. Zum Abspielen einer Spezialschallplatte von 17 cm Durchmesser (33 U/min) oder 30 cm Durchmesser (45 U/min) ist die Taste auf "INVERSE" umzustellen.

❻ **Heben/Senken-Knopf (CUEING)**
Dieser Knopf wird zum Heben und Senken des Tonarms verwendet. Wenn der Knopf auf UP gestellt wird, wird der Tonarm gehoben, und wenn er auf DOWN gestellt wird, wird der Tonarm sanft auf die Schallplatte abgesenkt.

⑦ START/STOP

This unit is designed to automatically select the presence and size of the record.
Pressing the START/STOP button causes the record size to be automatically selected. Then, the tonearm moves and the stylus lands in the record surface. When interrupting play, press the START/STOP button again.

Note:

- **When playing a 25 cm record or a transparent record, move the tonearm manually to the desired position.**

⑦ Start/Stop-Taste (START/STOP)

Dieses Gerät erfaßt das Vorhandensein und die Größe der aufgelegten Schallplatte automatisch. Bei Drücken der START/STOP-Taste wird automatisch die korrekte Schallplattengröße angewählt, und der Tonarm setzt die Nadel am Beginn der Schallplatte auf. Zum Unterbrechen des Abspielvorgangs erneut die START/STOP-Taste drücken.

Hinweis:

- **Beim Spielen einer 25-cm- oder einer durchsichtigen Schallplatte, ist der Tonarm manuell in die gewünschte Position zu bringen.**

Operation of Automatic Mechanism

■ Start/stop Mechanism

1. Start

When the tonearm is in the arm rest with a record placed on the platter, the tonearm moves toward the record as shown below. When the START/STOP button is pressed, the platter starts rotating and the record size is detected. The plunger is pulled in the direction of Ⓐ the lever rotates in the direction of the arrow Ⓑ and the spring attached to the lever turns the trip lever in the direction of Ⓒ.

As the trip lever moves the engage in the direction of Ⓓ and the platter spindle gear and main gear are engaged, the change cycle is started and the lead-in operation starts. (Fig. 1)

Fig. 2 shows the state at the end of the above operation.

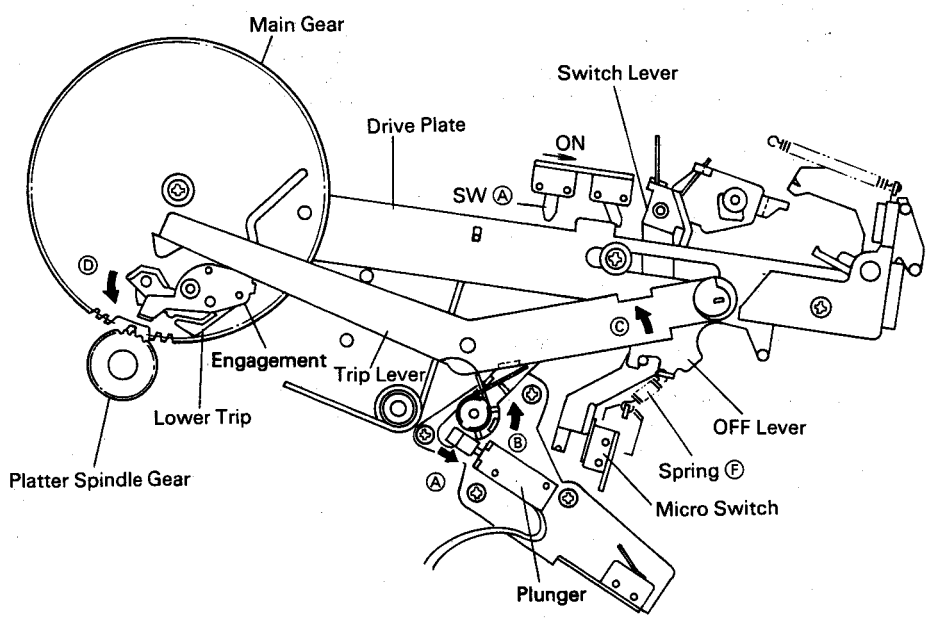


Fig. 1

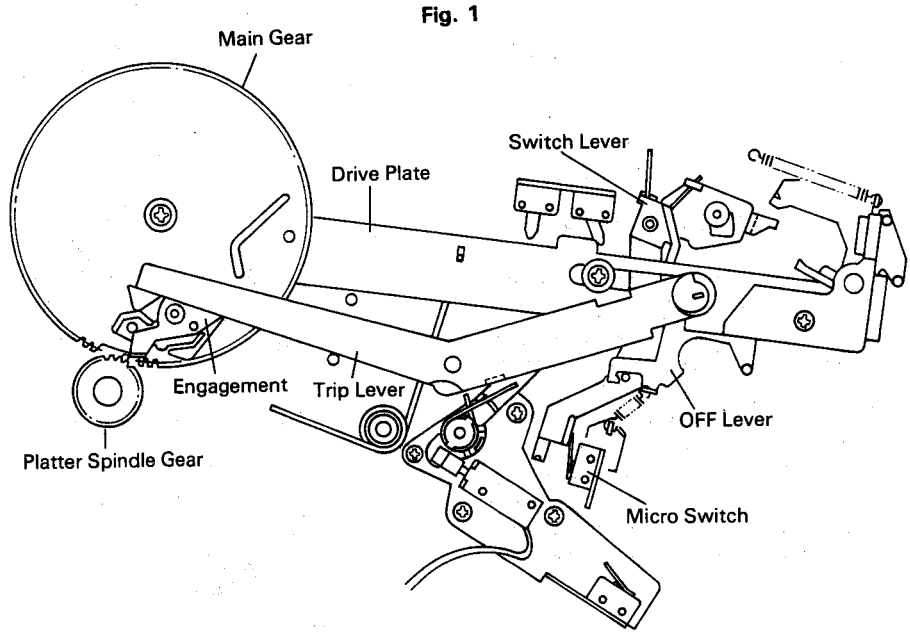


Fig. 2

2. Stop

When the START/STOP button is pressed while tonearm is not in the arm rest, the plunger is pulled in the direction of Ⓐ, the change cycle is started and the lead-out operation starts.

■ Lead-in Mechanism

When the change cycle starts and the main gear rotates, the drive plate is moved to rotate the elevator cam as shown in Fig.3.
As the elevator cam rotates with the linear motion of drive plate in direction "a", the elevator is pushed up by the sloping part of the elevator cam to lift the tonearm.

At the end of the linear motion of the drive plate in direction "a", stud Ⓑ (mold) of the lead-in lever enters the cam hole in the chassis base, then the lead-in lever rotates in direction "c", and arm lever stud Ⓐ is holded between lead-in lever and case as shown Fig. 4, and the drive plate moves in direction "b". Arm lever stud Ⓐ moves with the drive plate to move the tonearm onto the record.
In the stop or lead-out mode, as the drive plate linearly moves in the direction of "a" as shown in Fig. 3, arm lever stud Ⓐ is shifted toward the rest in the direction of "d". However, as shown in Fig. 5, lead-in lever stud Ⓑ (mold) temporarily rotates in the direction of "c", then comes into contact with stopper Ⓓ, returns in the direction of "e" and moves in the direction of "b" without clamping arm lever stud Ⓐ. As the result, the tonearm remains in the arm rest, the change cycle is completed and the unit returns to the initial state.

When the size of the record is 17 cm, as the plunger is pulled until switch A turns ON, boss A remains in the 17 cm record mode. (Fig. 1) (Fig. 6)
On the other hand, as the rib B of index stops at boss A, arm lever Ⓒ moves to 17 cm stopper.
When the size of the record is 30 cm, as the plunger immediately turns OFF, the lever moves in the direction of the arrow. Rib B of the index does not come into contact with boss A and moves greatly and arm lever Ⓒ stops at the 30 cm stopper.

To adjust the arm lever position (lead-in position), screw the eccentric adjuster.

■ Change Cycle Start Mechanism

During play, the relationship between the main gear notch and the platter spindle gear is as shown in Fig. 7. Since the projection is apart from the engagement, the main gear is stationary even when the platter is rotating. As play proceeds, the arm lever pushes the trip lever and this moves the lower trip which, in turn, gradually drives out the engagement mounted on the lower trip. The relationship between the engagement and the projection at this time is as shown in Fig. 8. When the pitch of the record groove is small, the pitch of engagement advance is also small and the engagement will be pushed by the projection. The main gear, therefore, remains stationary.

At the end of play, when the tonearm comes to the leadout groove having a larger pitch, the engagement advances more than the projection pushes it back and their relationship is now as shown in Fig. 9. The projection pushes the engagement, the main gear starts to turn, the main gear notch moves and the platter spindle gear engages with the main gear. Thus, the change cycle starts as the main gear starts to turn. When the main gear stops turning, the relationship shown in Fig. 7 is restored and the main gear remains stationary even when the platter spindle gear turns.

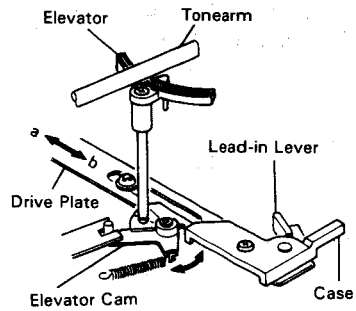


Fig. 3

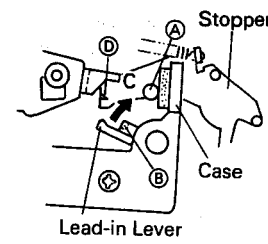


Fig. 4

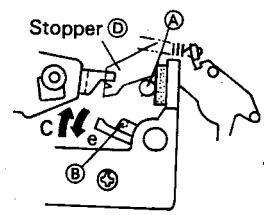


Fig. 5

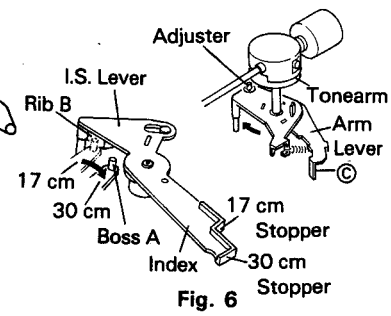


Fig. 6

On the other hand, the driven out engagement and lower trip are pushed back to their initial positions by the edge of the platter spindle gear just before the main gear stops turning. The cam of the main gear pushes the trip lever back to its initial position earlier than the engagement and lower trip. The return position can be fine-adjusted to start earlier or later by screwing the adjuster. (Fig. 10)

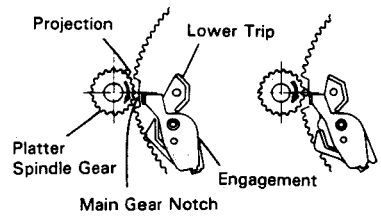


Fig. 7

Fig. 8

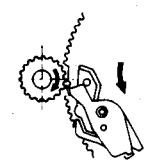


Fig. 9

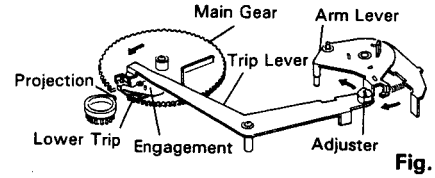


Fig. 10

Description of Technology

■ Detection of Presence/Absence of Record and Size Select Circuit

- The presence or absence of a record is detected by light from the lamp passing through the slits in the platter.

Every time a slit passes over the phototransistor, an output pulse is obtained from pins A and B.
Outputs A and B depend on the record size with "pulse present" represented by 0 (⊔) and "no pulse" represented by 1.

Output	A	B
30 cm record	1	1
17 cm record	1	0 (⊔)
No record	0 (⊔)	0 (⊔)

Output A is used to detect the presence/absence of a record and output B the size of the record.

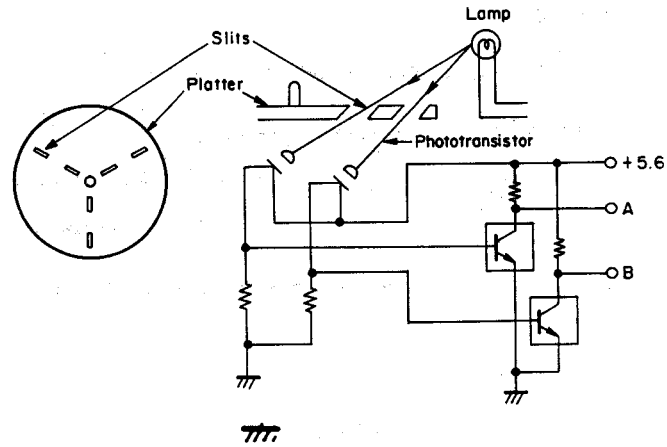


Fig. 11

Adjustments

■ Tonearm Elevator-height Adjustment

The optimum clearance between the stylus tip and the record surface is about 6 mm (Fig. 12) when the tonearm is resting on the tonearm elevator (with the UP/DOWN knob switched to the UP position). Turning the adjusting screw clockwise lowers the height of the tonearm elevator and turning it counterclockwise increases it.

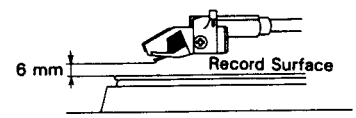


Fig. 12

■ Lead-out Adjustment

If auto-return functions early or late, adjust as shown in Fig. 13.
—When auto-return functions too late, turn the screw counterclockwise with a screwdriver.
—When auto-return functions too early, turn the screw clockwise.

When using test record, confirm the auto-return functions as follows.

Test record	Auto-return function
RG652	To be returned
RG653	Not to be returned

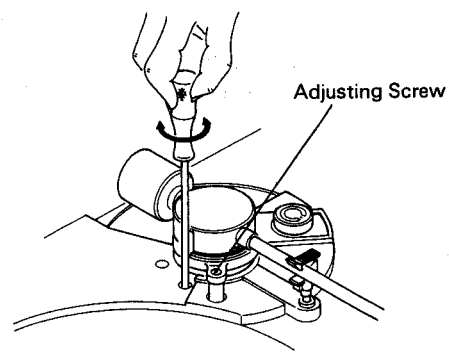


Fig. 13

■ Lead-in Adjustment

The AL-F350BK/AL-F350BKX is shipped from the JVC factory with the lead-in positions adjusted correctly. However, if the stylus lead-in positions are to be changed because the cartridge has been changed, etc., adjust in the following manner:

When using test record (SS4343 and SS4445).

Record size	Counter's numbers	Test record	
17 cm	22 ±2	SS4445	Adjustment
30 cm	20 ±4	SS4343	Confirmation

Note: When completing this adjustment, be sure to check the lead-out position.

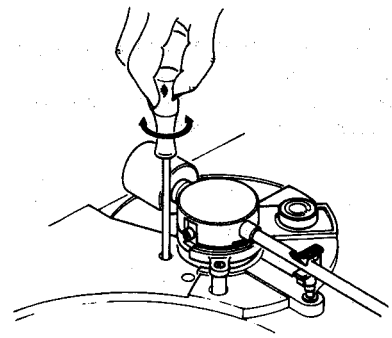


Fig. 14

■ Speed Adjustment

Adjust the speed by screwdriver as shown in Fig. 15.
When increasing the speed..... Turn the speed adjustment volume to the clockwise direction.
When decreasing the speed..... Turn the speed adjustment volume to the counter clockwise direction.

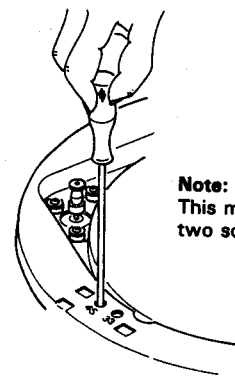
33 : 33 1/3 RPM (R733)
45 : 45 RPM (R745)

Note: Be sure to adjust the 45 rpm adjustment after completing the 33 rpm adjustment.

1. When using test record (RG 2056)
   Reproduce 3,150 Hz, then adjust the speed adjustment volume. So that, the counter reads 3,150 Hz ±0.5%.

A side — 33 1/3 RPM ..... Band 2
A side — 45 RPM ..... Band 3

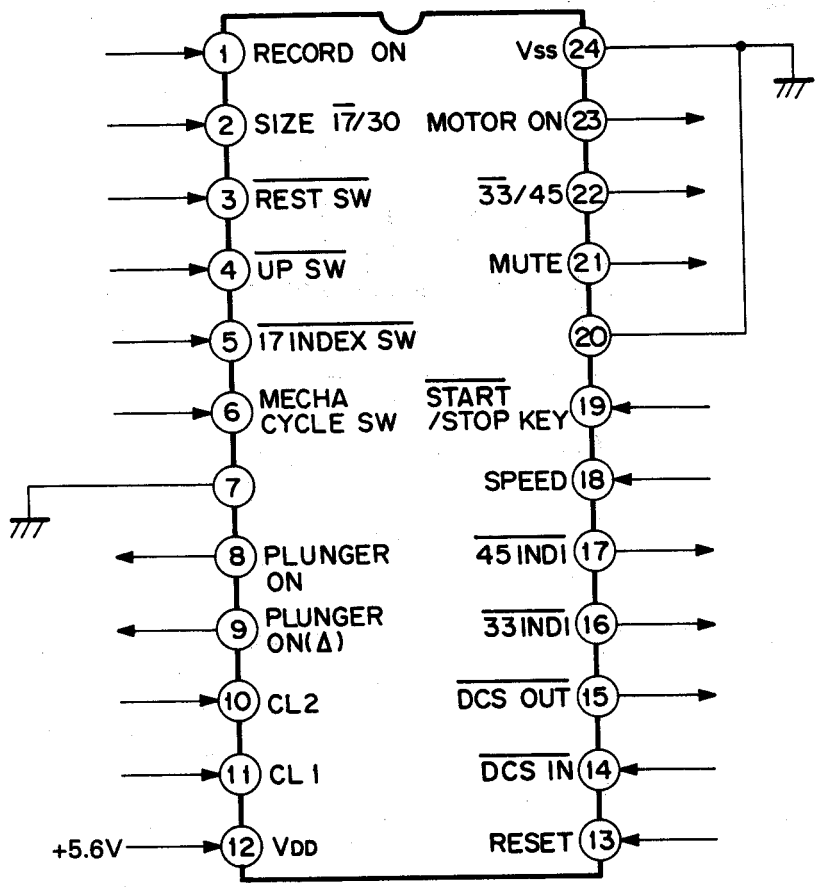
B side — 33 1/3 RPM ..... Band 4
B side — 45 RPM ..... Band 5



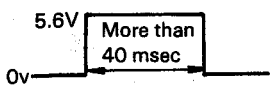
Note:
This motor is fixed by two screws.

Fig. 15

■ Pin Function of Microcomputer (μPD7566CS-052)



Pin 1: RECORD DETECT input
("H" = present, "L (pulse)" = absent)
Pin 2: RECORD SIZE input
("H" = 30 cm, "L (pulse)" = 17 cm)
Pin 3: REST switch input
("L" = Rest)
Pin 4: Arm Up condition input
("L" = Arm Up)
Pin 5: Plunger-pull-off input at 17 cm
("L" = Plunger off)
Pin 6: Mecha cycle rest switch input
("H" = At Mecha cycling)
Pin 7: GND
Pin 8, 9: Plunger-pull-drive output
("H" = Plunger pull)
Pin 8 H: about 1 sec
Pin 9 H: about 0.1 sec
Pin 10, 11: Microcomputer OSC
Pin 12: +5.6V
Pin 13: Microcomputer Reset input

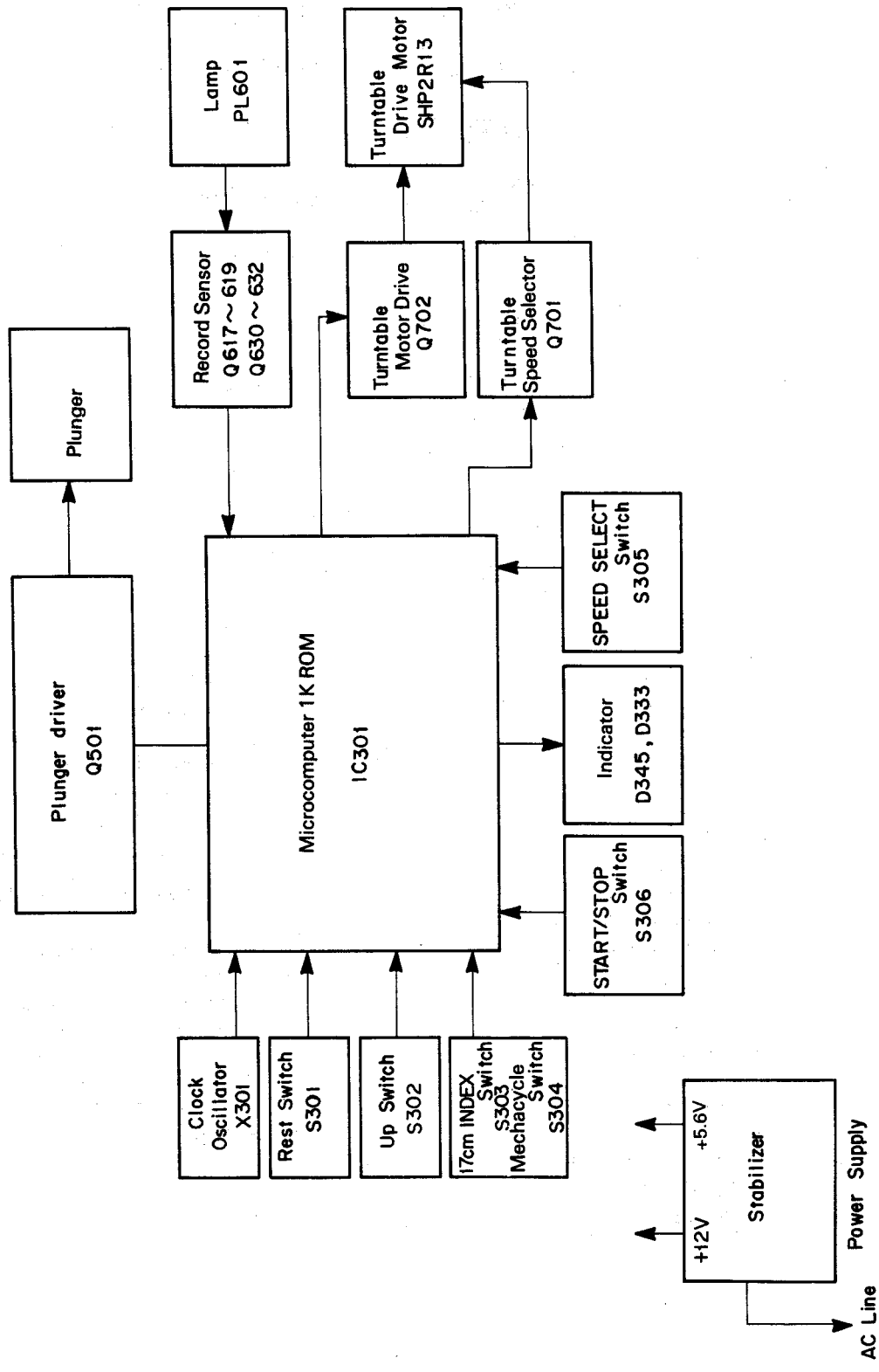


Pin 14: DCS Signal input (Negative signal-in)
Pin 15: DCS Signal output (Negative signal-out)
Pin 16: 33 rpm INDICATOR output (active = "L")
Pin 17: 45 rpm INDICATOR output (active = "L")
Pin 18: SPEED SELECT switch input

		30 cm	17 cm
H	NORMAL	33 rpm	45 rpm
L	INVERSE	45 rpm	33 rpm

Pin 19: START/STOP Key input (active = "L")
Pin 20: GND
Pin 21: Signal muting output (active = "H")
Pin 22: Motor speed control output
("L" = 33 rpm, "H" = 45 rpm)
Pin 23: Motor drive output
("H" = Motor ON)
Pin 24: GND

Block Diagram



Trouble Shooting

■ When Turntable Operation is Abnormal

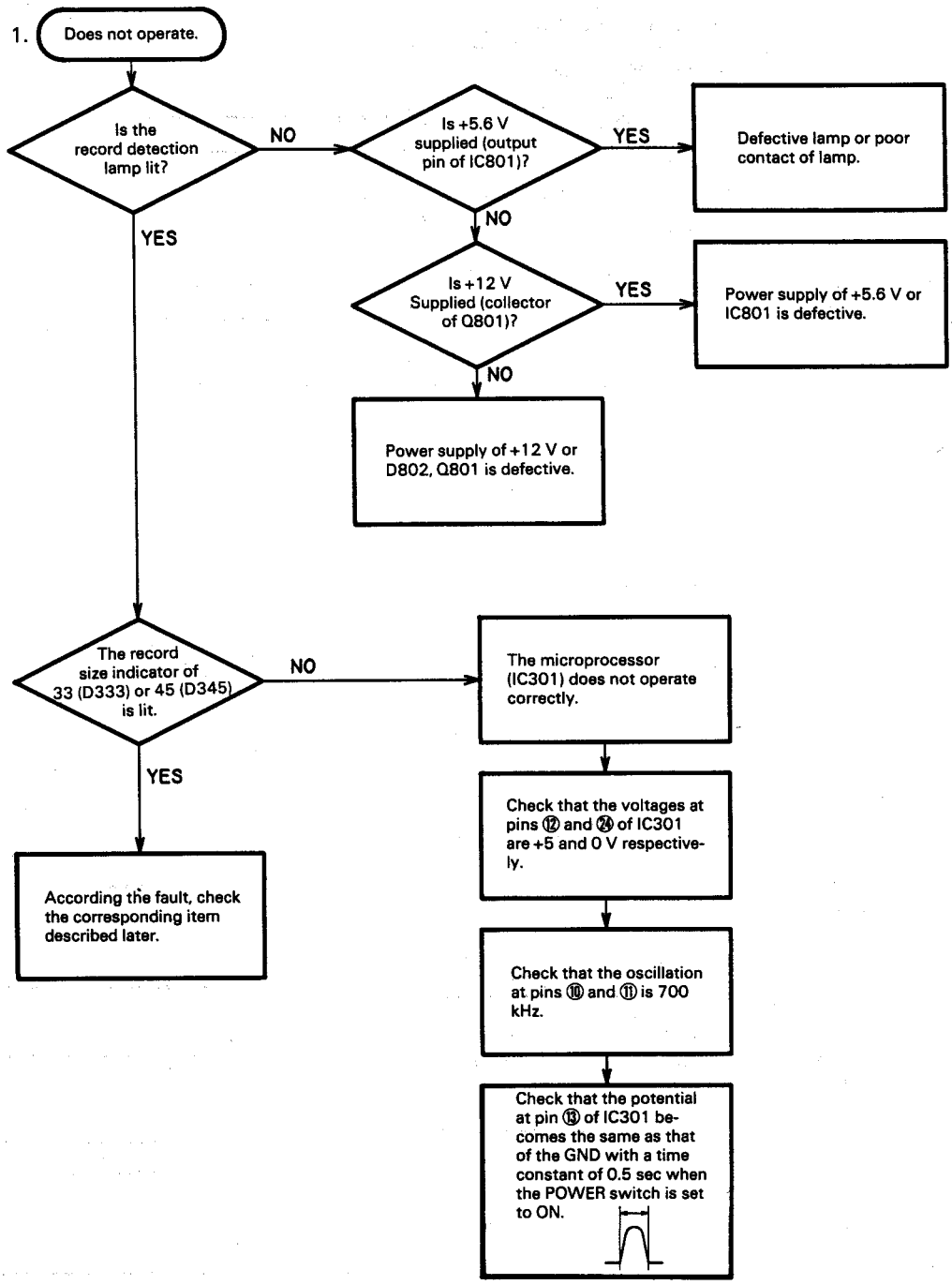

1.
Does not operate.
Is the record detection lamp lit?
NO
Is +5.6 V supplied (output pin of IC801)?
YES
Defective lamp or poor contact of lamp.
NO
YES
Is +12 V Supplied (collector of Q801)?
YES
Power supply of +5.6 V or IC801 is defective.
NO
Power supply of +12 V or D802, Q801 is defective.
YES
The record size indicator of 33 (D333) or 45 (D345) is lit.
NO
The microprocessor (IC301) does not operate correctly.
YES
According the fault, check the corresponding item described later.
Check that the voltages at pins ⑫ and ㉔ of IC301 are +5 and 0 V respectively.
Check that the oscillation at pins ⑩ and ⑪ is 700 kHz.
Check that the potential at pin ⑬ of IC301 becomes the same as that of the GND with a time constant of 0.5 sec when the POWER switch is set to ON.

Fig. 16

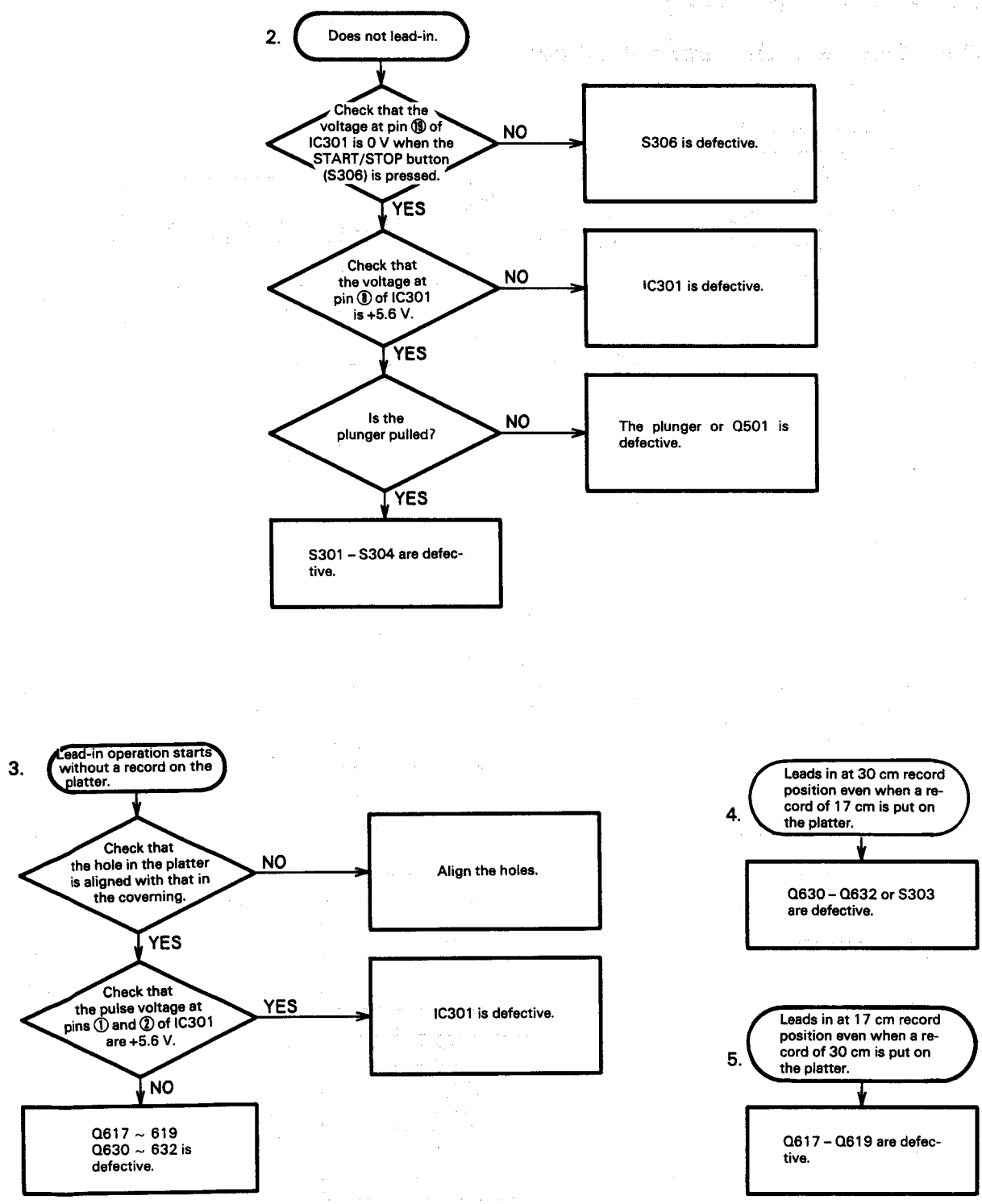
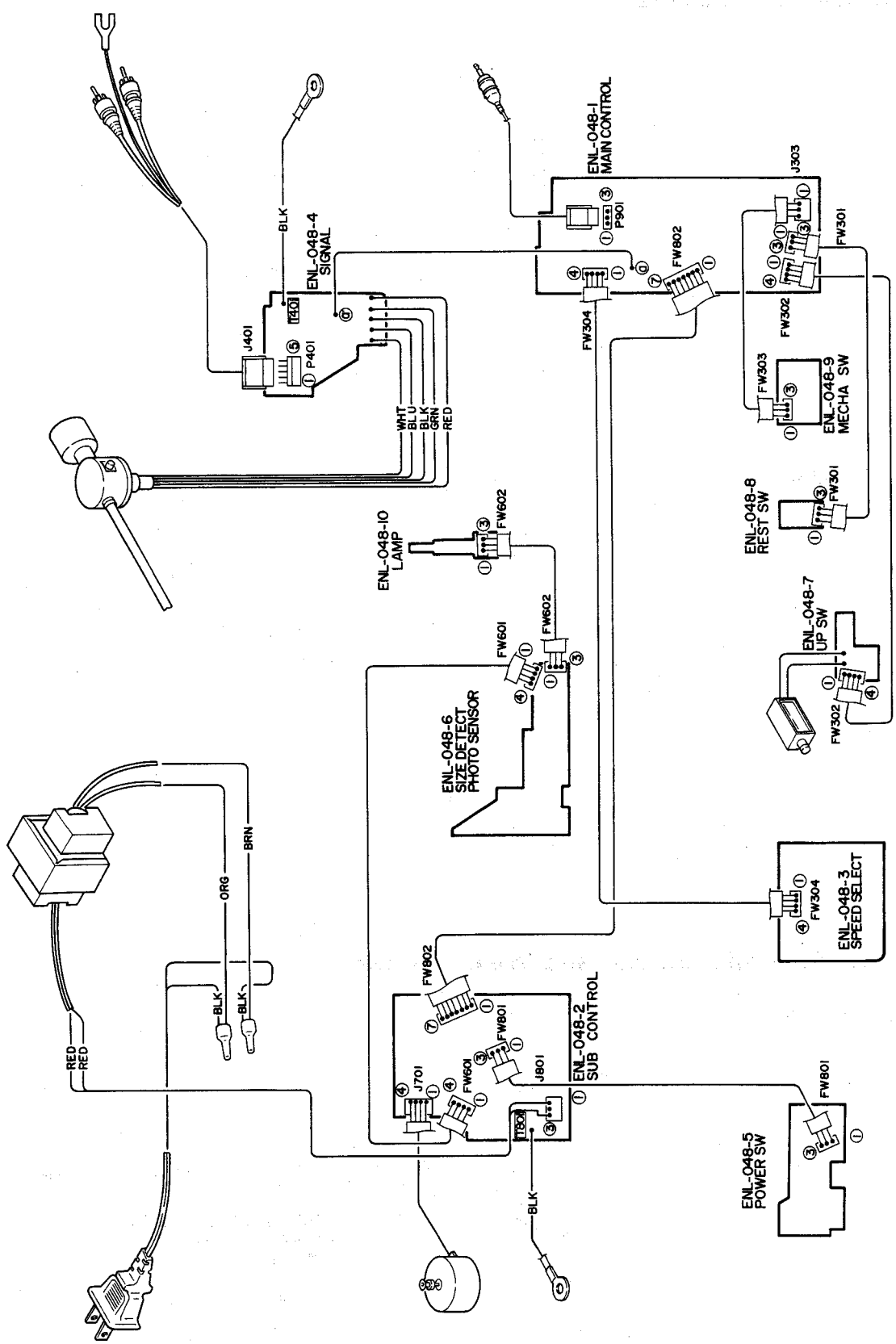

2.
Does not lead-in.
Check that the voltage at pin ⑱ of IC301 is 0 V when the START/STOP button (S306) is pressed.
NO
S306 is defective.
YES
Check that the voltage at pin ⑧ of IC301 is +5.6 V.
NO
IC301 is defective.
YES
Is the plunger pulled?
NO
The plunger or Q501 is defective.
YES
S301 – S304 are defective.
3.
Lead-in operation starts without a record on the platter.
Check that the hole in the platter is aligned with that in the coverning.
NO
Align the holes.
YES
Check that the pulse voltage at pins ① and ② of IC301 are +5.6 V.
YES
IC301 is defective.
NO
Q617 ~ 619
Q630 ~ 632 is defective.
4.
Leads in at 30 cm record position even when a record of 17 cm is put on the platter.
Q630 – Q632 or S303 are defective.
5.
Leads in at 17 cm record position even when a record of 30 cm is put on the platter.
Q617 – Q619 are defective.

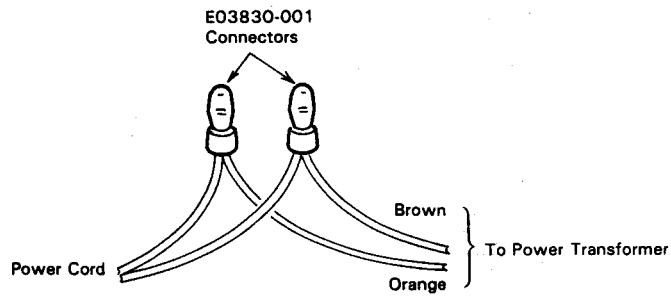
Fig. 16

Connection Diagram



Power Cord Connections in Different Areas

■ For U.S.A. and Canada



For U.S.A. & Canada

Fig. 18

■ For U.S. Military Market and Other Areas

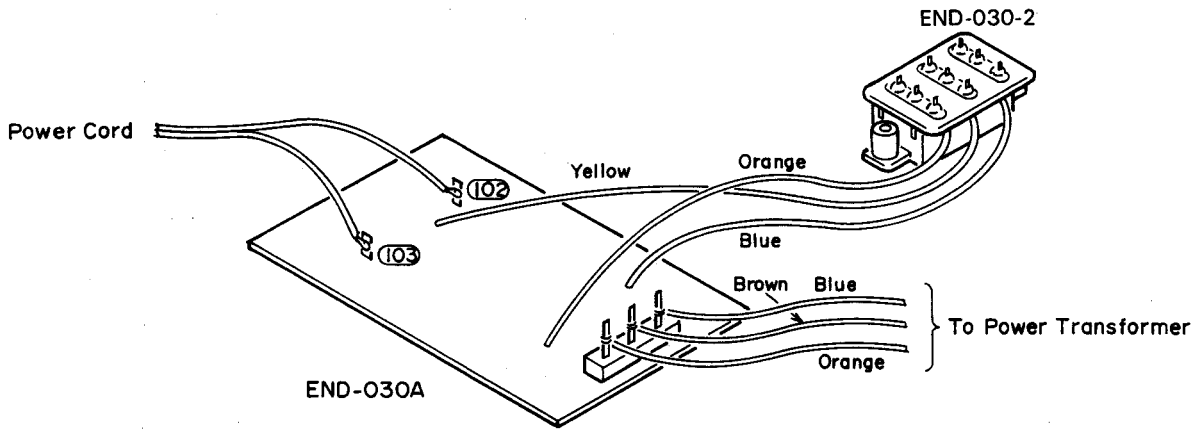
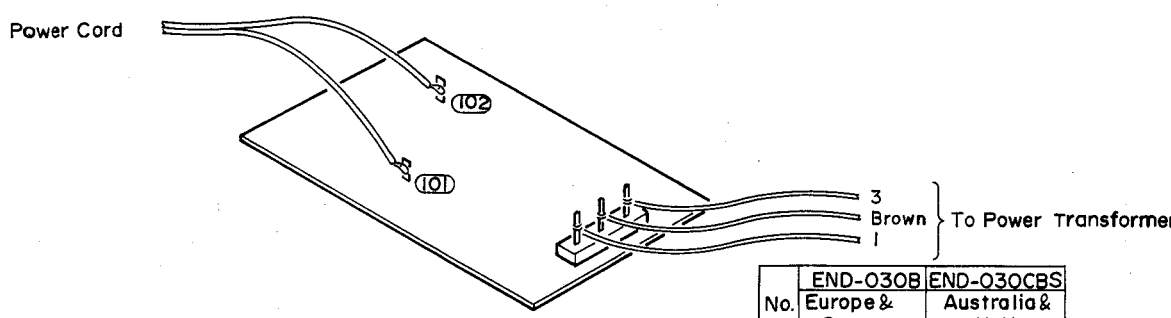


Fig. 19

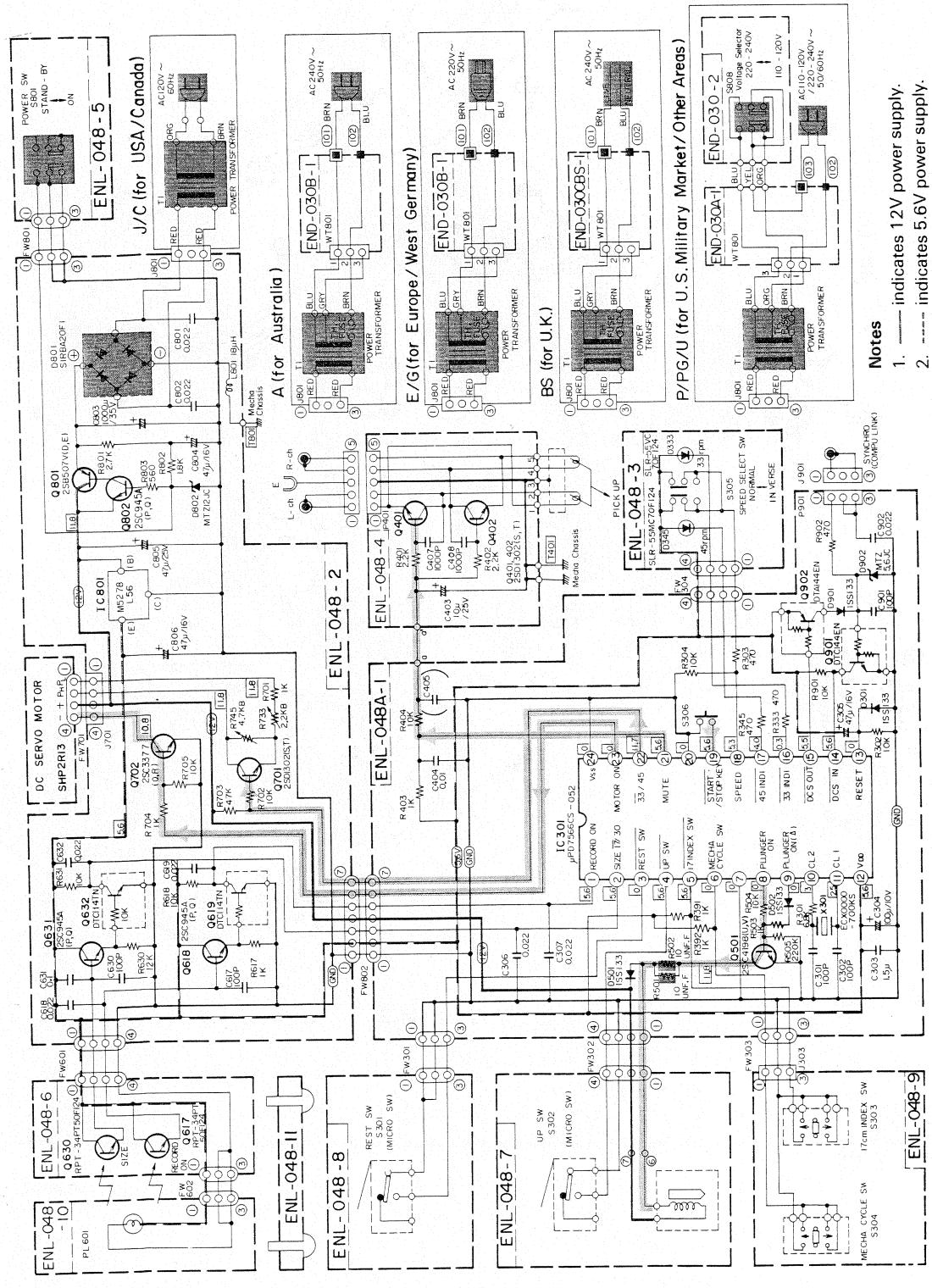
■ For U.U., Australia, Europe and West Germany



No.	END-030B Europe & Germany	END-030CBS Australia & U.K.
1	Gray	Blue
3	Blue	Gray

Fig. 20

Schematic Diagram



Notes

1. —— indicates 12V power supply.
2. - - - - indicates 5.6V power supply.
3. ▭ shows DC voltage to chassis with no signal input.
4. When replacing the parts in the darkned area (▬) and those marked with ⚠, be sure to use the designated parts to ensure safety.
5. This is the standard circuit diagram.
   The design and contents are subject to change without notice.

Fig. 21

Application Points of Grease

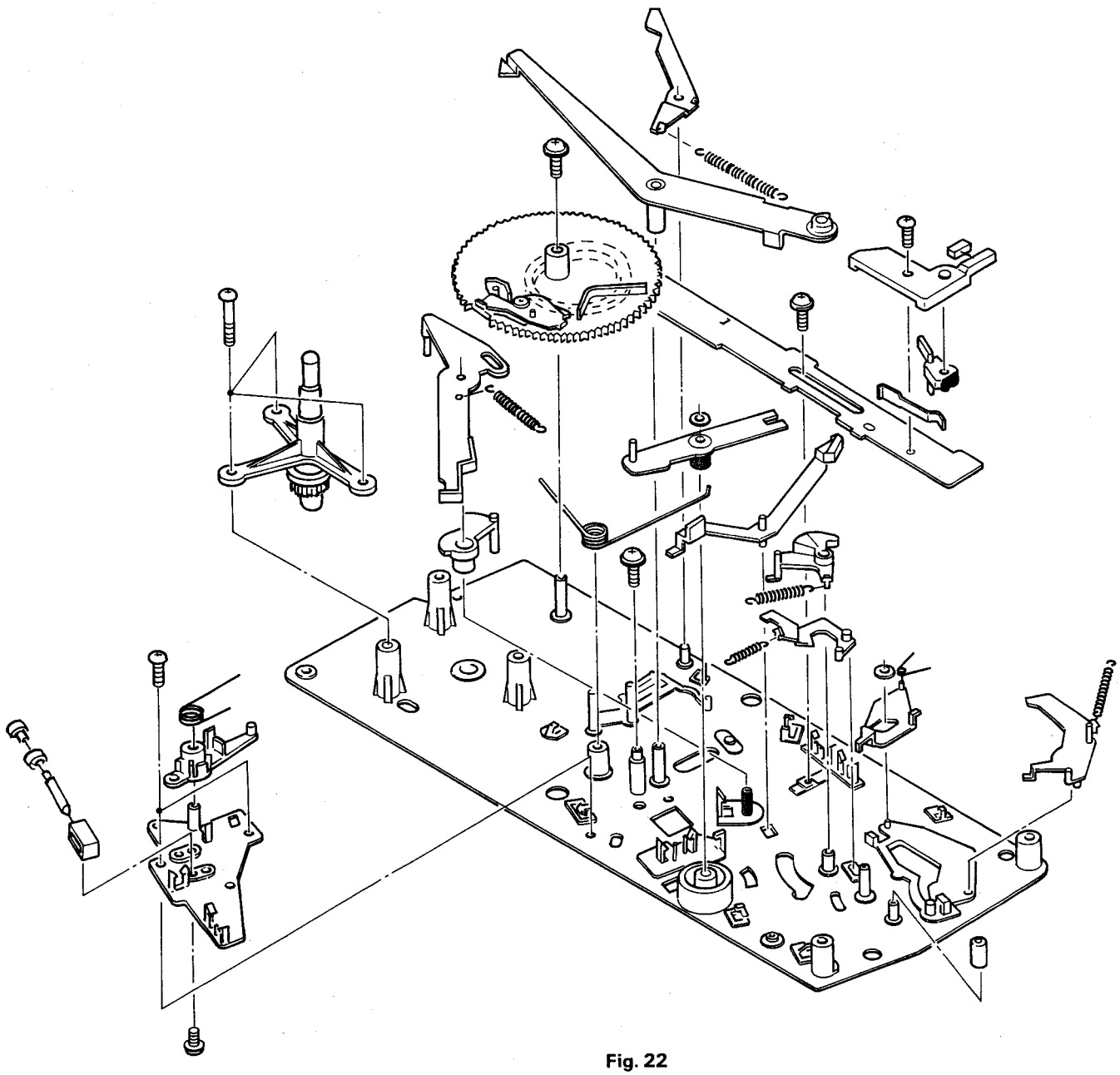


Fig. 22

■ G330P
■ G332
FL-LUBEA

SPECIFICATIONS

MOTOR AND PLATTER

Drive system	:	Fully-automatic belt-drive turntable
Drive Motor	:	DC servo motor
Speeds	:	33-1/3 rpm and 45 rpm
Wow and Flutter	:	0.035% (WRMS), 0.05% (DIN)
Signal to Noise Ratio	:	69dB (DIN-B)
Platter	:	12-3/16-inch (30.8cm) diameter die-cast aluminum alloy

TONEARM

Type	:	Statically balanced straight tubular arm with JVC developed TH (Tracing Hold) balancing system
Effective Arm Length	:	220 mm
Overhang	:	15 mm
Applicable Cartridge Weight	:	5.9 grams

CARTRIDGE

Type	:	Moving magnet (MD 1045C)
Stylus	:	0.6 mil. conical diamond for DT-45
Optimum Tracking Force	:	1.25 grams
Output	:	2.5 mV (1 kHz 50 mm/sec. lateral)
Frequency Response	:	10Hz to 25,000Hz
Separation	:	25 dB (1 kHz)
Load Impedance	:	47 kohms
Compliance	:	8 x 10^{-6} cm/dyne (100Hz dynamic)
Tracking Ability	:	80 μm at 315 Hz

Note:
●Not provided on the AL-F350BKX

GENERAL

Dimensions	:	(AL-F330BK) 43.5(W) x 10.2(H) x 35.9(D) cm (17-3/16" x 4-1/16" x 14-3/16") (AL-F350BK) 43.5(W) x 10.7(H) x 35.9(D) cm (17-3/16" x 4-1/4" x 14-3/16")
Net Weight	:	(AL-F330BK) 3.7kg (8.2lbs) (AL-F350BK) 4.3kg (9.5lbs)
Power Source	:	Refer to the table on back page.
Power Consumption	:	Refer to the table on back page.

Design and specifications subject to change without notice.

TECHNISCHE DATEN

MOTOR UND PLATTENTELLER

Antriebssystem	:	Vollautomatischer Plattenspieler mit Riemenantrieb
Motor	:	Gleichstrom-Servomotor
Geschwindigkeiten	:	33-1/3 Upm und 45 Upm.
Gleichlaufschwankungen	:	0,035% (WRMS), 0,05% (DIN)
Störspannungsabstand	:	69dB (DIN-B)
Plattenteller	:	30,8-cm Durchmesser, Druckguß-Aluminiumlegierung

TONARM

Typ	:	Statisch balancierter gerader Röhrentonarm mit dem von JVC entwickelten TH-Balancesystem (Rillenführung)
Effektive Armlänge	:	220 mm
Überhang	:	15 mm
Zulässiges Tonabnehmergewicht	:	5.9 grams

TONABNEHMER

Typ	:	Magnetisch (MD1045C)
Nadel	:	0,6 mil, konischer Diamant für DT-45
Optimale Auflagekraft	:	1.25 grams
Ausgang	:	2,5 mV (1 kHz 50 mm/Sec. seitlich)
Frequenzgang	:	10 Hz bis 25.000 Hz
Kanaltrennung	:	25 dB (1 kHz)
Lastimpedanz	:	47 kohms
Nachgiebigkeit	:	8 x 10^{-6} cm/Dyn. (100 Hz dynamisch)
Spurgenauigkeit	:	80 μm bei 315 Hz

Hinweis:
●Nicht vorhanden an ausgelieferten AL-F350BKX

ALLGEMEIN

Abmessungen	:	(AL-F330BK) 43,5(B) x 10,2(H) x 35,9(T) cm (AL-F350BK) 43,5(B) x 10,7(H) x 35,9(T) cm
Nettogewicht	:	(AL-F330BK) 3,7kg (AL-F350BK) 4,3kg
Spannungsversorgung	:	Siehe Tabelle auf der Rückseite
Leistungsaufnahme	:	Siehe Tabelle auf der Rückseite

Technische Änderungen vorbehalten.

POWER SPECIFICATIONS

Areas	Line Voltage & Frequency	Power Consumption
U.S.A.	AC120V~,60Hz	7 watts
Canada		
Continental Europe	AC220V~,50Hz	
U.K.	AC240V~,50Hz	
Australia		
U.S. Military Market	AC110—120/220—240V~ selectable, 50/60Hz	
Other areas	AC110—120/220—240V~ selectable, 50/60Hz	

SPANNUNGSVERSORGUNG UND LEISTUNGSAUFNAHME

Länder	Spannung & Frequenz	Leistungsaufnahme
U.S.A.	Netz 120V~,60Hz	7 Watt
Kanada		
Kontinental-Europa	Netz 220V~,50Hz	
Großbritannien	Netz 240V~,50Hz	
Australien		
US-Militärmarkt	Netz 110—120/220—240V~(schaltbar), 50/60Hz	
Andere Länder	Netz 110—120/220—240V~(schaltbar), 50/60Hz	

CARACTERISTIQUES D'ALIMENTATION

Pays	Tension d'alimentation et fréquence	Consommation
Etats-Unis	CA120V~,60Hz	7 watts
Canada		
Europe Continentale	CA220V~,50Hz	
Royaume-Uni	CA240V~,50Hz	
Australie		
Marché de l'Armée Américaine	CA110—120/220—240V~commutable, 50/60Hz	
Autres Pays	CA110—120/220—240V~commutable, 50/60Hz	

SPANNINGSVEREISTEN

Gebieden	Netspanning en frekwentie	Stroomverbruik
Verenigde Staten	Net 120V~,60Hz	7 Watt
Canada		
Europese Vasteland	Net 220V~,50Hz	
Engeland	Net 240V~,50Hz	
Australië		
Militaire Handel	Net 110—120/220—240V~,50/60Hz	
Andere Gebieden	Net 110—120/220—240V~,50/60Hz	

ESPECIFICACIONES DE ALIMENTACION

Países	Voltaje y frecuencia	Consumo
EE.UU.	CA120V~,60Hz	7 vatios
Canadá		
Europa Continental	CA220V~,50Hz	
R.U.	CA240V~,50Hz	
Australia		
Bases Militares de EE.UU	CA110—120/220—240V~ seleccionable, 50/60Hz	
Otros Países	CA110—120/220—240V~ seleccionable, 50/60Hz	

JVC
VICTOR COMPANY OF JAPAN, LIMITED

Printed in Japan

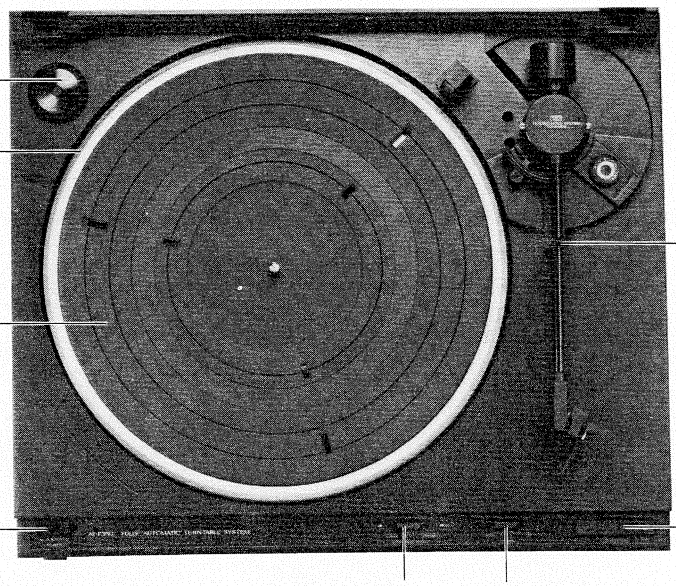
PARTS LIST

Contents

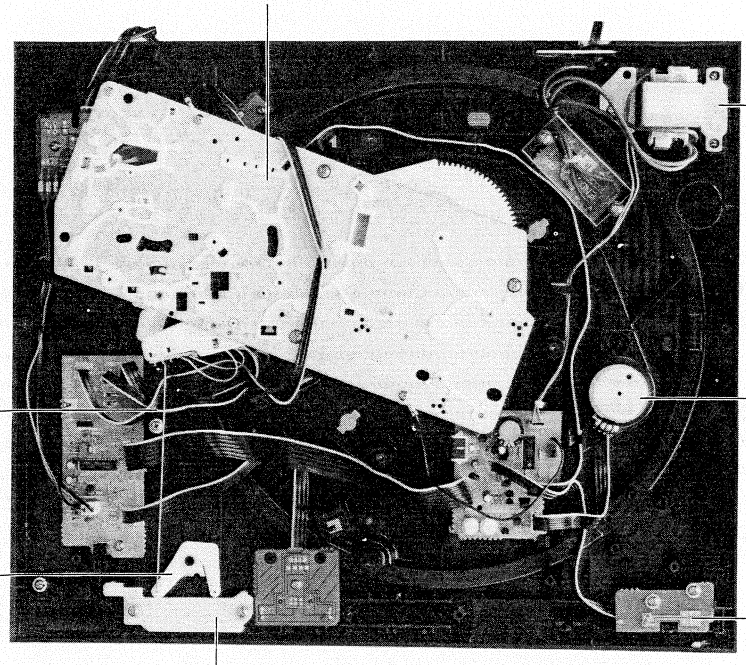
Main Parts Locations 2-2
Exploded View and Parts Numbers 2-3
■ Mechanism Base Ass'y 2-3
■ Mechanism Ass'y 2-4
■ Mechanism List 2-5
Printed Circuit Board Ass'y and Parts List 2-6
■ END-030□ Power Supply P.C. Board Ass'y 2-6
■ ENL-048A Main P.C. Board Ass'y 2-6
Accessories List 2-7
Packing Materials and Part Numbers 2-8

Main Parts Locations

■ Top View

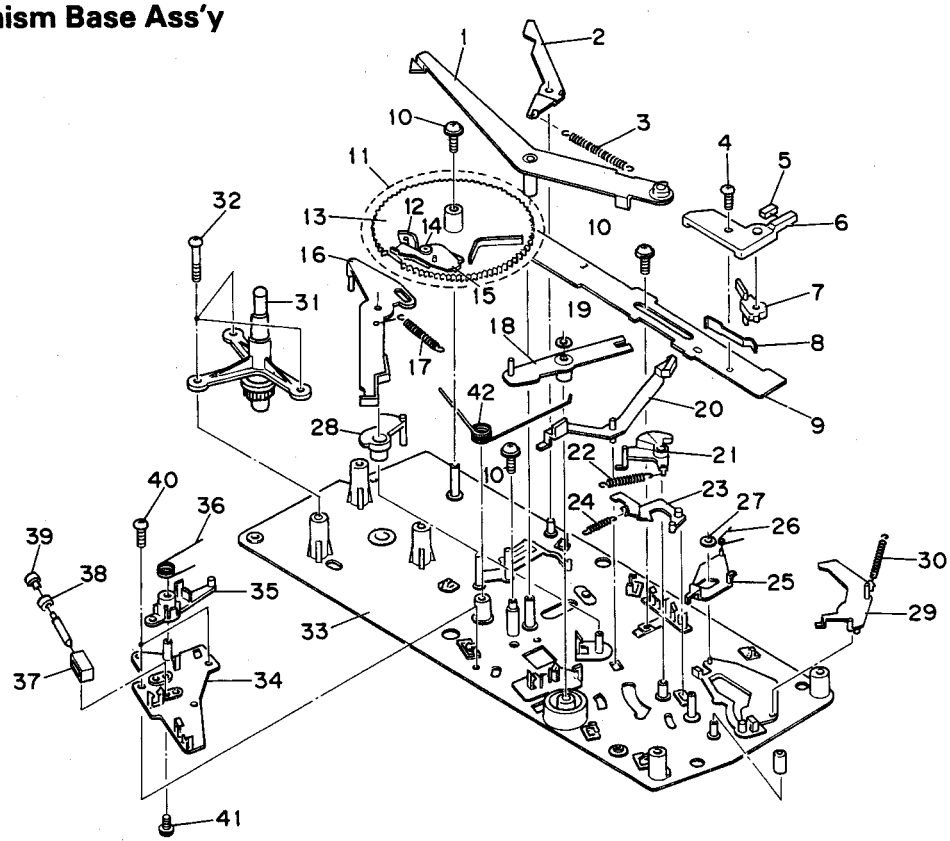


■ Bottom View



Exploded Views and Part Numbers

■ Mechanism Base Ass'y



⚠	Item No.	Part Number	Part Name	Q'ty	Description	Area
	1	E72967-004	Trip Lever Ass'y	1		
	2	E70266-001	Gear Stopper	1		
	3	E67694-004	Spring	1		
	4	LPSP3008Z	Screw	1		
	5	E69955-001	Cushion	1		
	6	E302553-001	Case	1		
	7	E69966-001	Leadin Lever	1		
	8	E69976-001	L.I.Spring	1		
	9	E69971-002	Drive Plate Ass'y	1		
	10	E65923-004	Screw	3		
	11	E70038-003	Main Gear Ass'y	1		
	12	E302552-001	Lower Trip	1		
	13	E24318-002	Main Gear	1		
	14	E60912-001	Speed Nut	1		
	15	E69974-001	Engagement	1		
	16	E69962-002	Index	1		
	17	E67694-014	Spring	1		
	18	E303774-003	Cueing Lever	1		
	19	E69958-001	Washer	1		
	20	E69957-003	Switch Leaver	1		
	21	E302554-001	Elevator Cam	1		
	22	E67694-017	Spring	1		
	23	E69961-001	OFF Lever	1		
	24	E67694-011	Spring	1		
	25	E69960-001	Timing Lever	1		
	26	E71426-002	Spring	1		
	27	E69958-001	Washer	1		
	28	E69963-001	I.S.Lever	1		
	29	E69959-001	Stopper	1		
	30	E67694-006	Spring	1		
	31	E302583-001	Spindle Ass'y	1		
	32	SBST3030Z	Screw	3		
	33	E24316-006	Base Ass'y	1		
	34	E304546-001	Solenoide Base	1		
	35	E304547-001	Solenoide Lever	1		
	36	E73841-002	Spring	1		
	37	ENZ3002-002	Solenoide	1		
	38	E70267-004	R.Tube	1		
	39	E73821-001	Solenoide Cap	1		
	40	SDSP2004Z	Screw	2		
	41	SBST3006Z	Screw	1		
	42	E73840-002	Spring	1		

■ Mechanism Ass'y

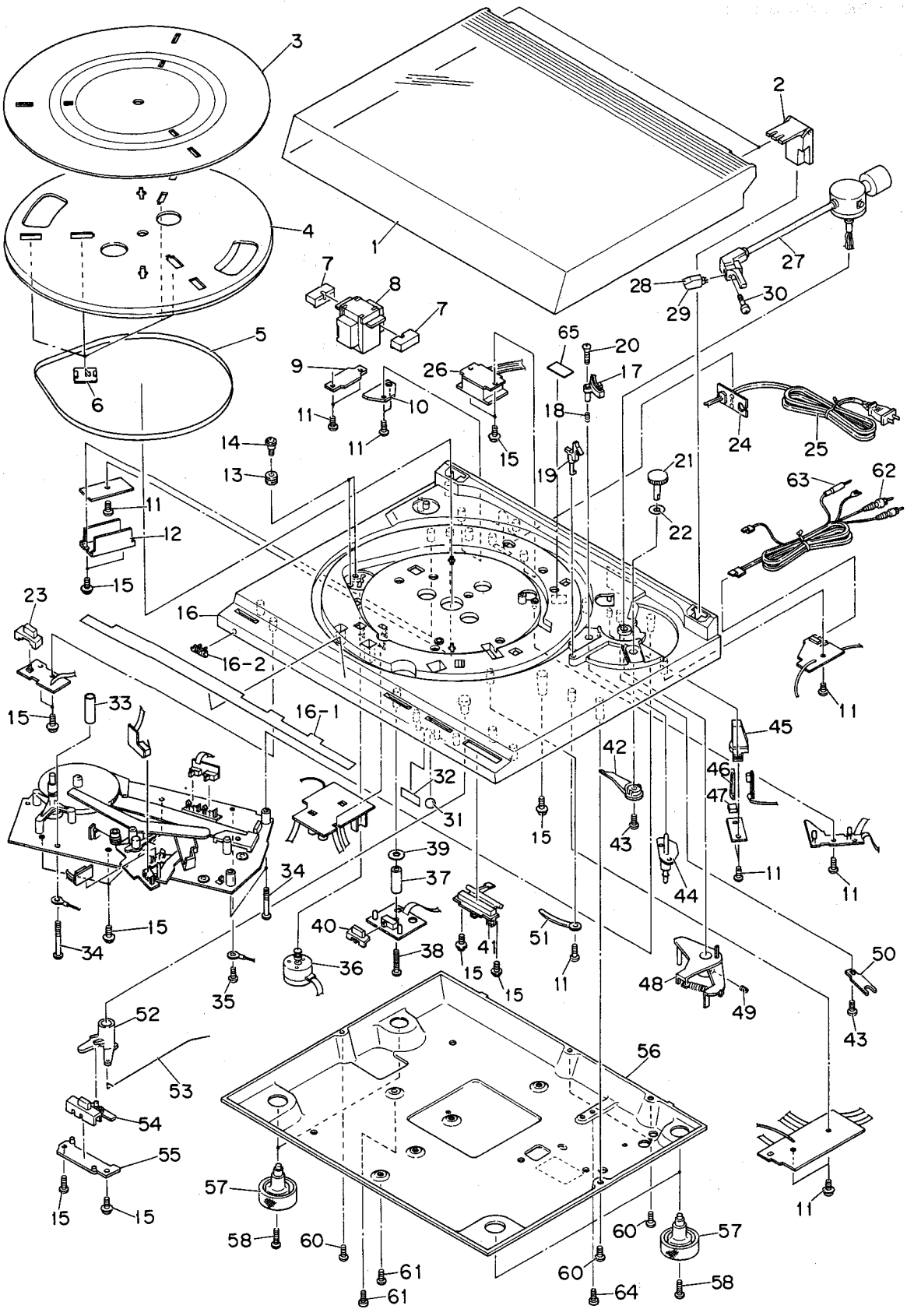


Fig. 2-4

Mechanism List

⚠	Item No.	Part Number	Part Name	Q'ty	Description	Area
	1	E10823-002	Dust Cover Ass'y	1		
	2	E70081-002	Hinge Ass'y	2		
	3	E304735-002	Turntable Covering Ass'y	1		
	4	E25300-003	Turntable	1		
	5	E301164-002	Belt	1		
	6	E73822-001	Turntable Lens	4		
	7	E61824-002	Cushion	2		
⚠	8	ETP1000-43JA	Power Transformer	1		J,XJ,C
⚠		ETP1000-43LA	Power Transformer	1		U,P,PG
⚠		ETP1000-43EA	Power Transformer	1		E,G,A,ES
⚠		ETP1000-43EABS	Power Transformer	1		BS
	9	E72580-001	Transf. Holder	1		
	10	E72915-001	Transf. Plate	1		
	11	SBSF3008Z	Screw	11		
	12	E72900-001	Primary Cover	1		Except J,XJ,C
	13	E66509-002	Rubber Bushing	3		
	14	E68683-001	Screw	2		
	15	E65923-004	Screw	14		
	16	ETA-ALF350BKJ	Cabinet Ass'y	1		J,XJ
		ETA-ALF350BKE	Cabinet Ass'y	1		Except J,XJ
	16-1	E25559-002	Ornament	1		
	16-2	E72968-001	JVC Mark	1		
	17	E65829-007	Elevator Ass'y	1		
	18	E49649-001	Spring	1		
	19	E65824-009	Rest Ass'y	1		
	20	SSSP3016M	Screw	1		
	21	E301238-005	A.S.Knob	1		
	22	E49602-004	Wave Washer	1		
	23	E304548-001	Power Knob	1		
	24	E69884-001	Cord Holder	1		
⚠	25	QMP1200-200	Power Cord	1		J,XJ,C
⚠		QMP7600-200	Power Cord	1		U,P,PG
⚠		QMP3900-200	Power Cord	1		E,G,BS
⚠		QMP2560-244	Power Cord	1		A
⚠		QMP9017-008BS	Power Cord	1		BS
	26	QSS1L22-E01	Slide Switch	1		U,P,PG
	27	ARM-557	Tonearm Ass'y	1	Without Cartridge	
	28	MD1045CZ	Cartridge	1		Except XJ
	29	DT-45(B)	Stylus	1		Except XJ
	30	E70390-002	Screw	1		
	31	G41505-5	Steel Ball	1		
	32	E72902-001	Plate Spring	1		
	33	E72630-009	Tube Spacer	1		
	34	SBSF3035Z	Screw	3		
	35	SBST3006Z	Screw	1		
	36	SHP2R13	Motor	1		
	37	E72630-008	Tube Spacer	1		
	38	SBSF3020Z	Screw	1		
	39	QQ3091-202	Washer	1		
	40	E304161-002	Speed Knob	1		
	41	E73138-002	S.Knob Ass'y	1		
	42	E68342-004	A.S.Ass'y	1		
	43	SBSF3006Z	Screw	2		
	44	E71191-003	Cueing Ass'y	1		
	45	E304545-001	Lamp House	1		
	46	E69883-002	Lens	1		
	47	EXO01501DN80S	Felt Spacer	1		
	48	E72965-003	Arm Lever Ass'y	1		
	49	YWS4006FS	Set Screw	1		
	50	E70094-003	Stopper	1		
	51	E50670-005	Wire Clamp	1		
	52	E71184-002	Cueing Lever	1		
	53	E72921-004	Cueing Rod	1		
	54	E73136-001	Slide Knob Ass'y	1		
	55	E72956-002	Knob Holder	1		
	56	E11259-001	Bottom Board	1		
	57	E304168-003	Foot Ass'y	4		
	58	SBSF3010Z	Screw	4		
	59	E73177-001	Screw	1		
	60	SBSF3008M	Screw	6		
	61	SBSF3012Z	Screw	2		
	62	EWP303-009	Signal Cord	1		J,XJ
		EWP303-008	Signal Cord	1		Except J,XJ
	63	EWP802-002	Plug Cord Ass'y	1		J,XJ,C
		EWP802-001	Plug Cord Ass'y	1		Except J,XJ,C
	64	SBST3006Z	Screw	1		
	65	E73986-001	Sheet	1		
	–	E03830-001	Connector	1		J,XJ,C

⚠: Safety parts

The Marks for Designated Areas	
J ..... U.S.A. (with Cartridge)	BS ..... U.K.
XJ ..... U.S.A. (without Cartridge)	P, PG ..... U.S. Military Market
C ..... Canada	G ..... West Germany
E ..... Europe	U ..... Other Countries
A ..... Australia	No Mark indicates all areas
ES ..... Spain	

Printed Circuit Board Ass'y and Parts List

■ END-030□ Power Supply P.C. Board Ass'y (Except for U.S.A. and Canada)

Note: END-030□ Varies according to the areas employed. See Note (1).

Note (1)

P.C. Board Ass'y	Designated Areas
END-030A	U.S. Military Market & Other Countries
END-030B	Australia, Europe, Spain & West Germany
END-030C BS	U.K.

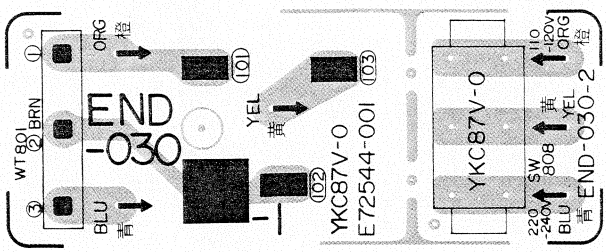
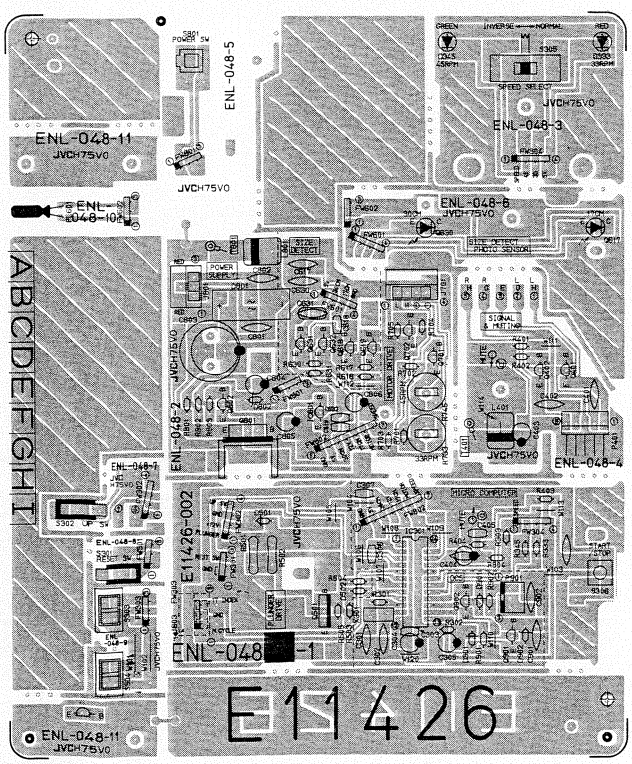


Fig. 2-5

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		E65508-002	TAB	
		E67764-203	TERMINAL.ASSY	
		E72544-001	P.W.BOARD	A
		E72544-001	P.W.BOARD	B
		E72544-001BS	P.W.BOARD	CBS
	S808	QSS1L22-E01	SLIDE SWITCH	A

■ ENL-048A Main P.C. Board Ass'y



TRANSISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	Q401	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q402	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q501	2SC4198(U,V)	SILICON	ROHM	
	Q617	RPT-34PT50F124	PHOTO TR	ROHM	
	Q618	2SC945A(P,Q)	SILICON	NEC	
	Q619	DTC114TN	SILICON	ROHM	
	Q630	RPT-34PT50F124	PHOTO TR	ROHM	
	Q631	2SC945A(P,Q)	SILICON	NEC	
	Q632	DTC114TN	SILICON	ROHM	
	Q701	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q702	2SC3377(Q,R)	SILICON	ROHM	
	Q801	2SB507V(D,E)	SILICON	SANYO	
	Q802	2SC945A(P,Q)	SILICON	NEC	
	Q901	DTC144EN	SILICON	ROHM	
	Q902	DTA144EN	SILICON	ROHM	

I. C. S

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	IC301	UPD7566CS-052	I.C.	NEC	
	IC801	M5278L56	I.C.	MITSUBISHI	

DIODES

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	D301	1SS133	SILICON	ROHM	
	D333	SLR-55VC50F124	L.E.D.	ROHM	
	D345	SLR-55MC50F124	L.E.D.	ROHM	
	D501	1SS133	SILICON	ROHM	
	D502	1SS133	SILICON	ROHM	
	D801	S1RBA20F1	SILICON		
	D802	MTZ12JC	ZENER	ROHM	
	D901	1SS133	SILICON	ROHM	
	D902	MTZ5.6JC	ZENER	ROHM	

CAPACITORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C301	QCY21HK-101	100PF	50V	CERAMIC	
	C302	QCY21HK-101	100PF	50V	CERAMIC	
	C303	QCZ0202-155	1.5MF		CERAMIC	
	C304	QETB1AM-107	100MF	10V	ELECTRO	
	C305	QETB1CM-476	47MF	16V	ELECTRO	
	C306	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C307	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C403	QETB1EM-106	10MF	25V	ELECTRO	
	C404	QCF21HP-103	0.01MF	50V	CERAMIC	
	C407	QCY21HK-102	1000PF	50V	CERAMIC	
	C408	QCY21HK-102	1000PF	50V	CERAMIC	
	C617	QCY21HK-101	100PF	50V	CERAMIC	
	C618	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C619	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C630	QCY21HK-101	100PF	50V	CERAMIC	
	C631	QFV81HJ-104	0.1MF	50V	T.FILM	
	C632	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C801	QCF21HP-223	0.022MF	50V	CERAMIC	
	C802	QCF21HP-223	0.022MF	50V	CERAMIC	
	C803	QEU51VM-108M	1000MF	35V	ELECTRO	
	C804	QETB1CM-476	47MF	16V	ELECTRO	
	C805	QETB1EM-476	47MF	25V	ELECTRO	
	C806	QETB1CM-476	47MF	16V	ELECTRO	
	C901	QCY21HK-101	100PF	50V	CERAMIC	
	C902	QCF21HP-223	0.022MF	50V	CERAMIC	

RESISTORS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R301	QRD161J-682	6.8K	1/6W	CARBON	
	R302	QRD161J-103	10K	1/6W	CARBON	
	R303	QRD161J-471	470	1/6W	CARBON	
	R304	QRD161J-103	10K	1/6W	CARBON	
	R333	QRD161J-471	470	1/6W	CARBON	
	R345	QRD161J-471	470	1/6W	CARBON	
	R391	QRD148J-102S	1K	1/4W	CARBON	
	R392	QRD148J-102S	1K	1/4W	CARBON	
	R401	QRD161J-222	2.2K	1/6W	CARBON	
	R402	QRD161J-222	2.2K	1/6W	CARBON	
	R403	QRD161J-102	1K	1/6W	CARBON	
	R404	QRD161J-103	10K	1/6W	CARBON	
⚠	R501	QRZ0077-100	10	1/4W	FUSIBLE	
⚠	R502	QRZ0077-100	10	1/4W	FUSIBLE	
	R503	QRD161J-102	1K	1/6W	CARBON	
	R504	QRD161J-103	10K	1/6W	CARBON	
	R505	QRD161J-224	220K	1/6W	CARBON	
	R617	QRD161J-102	1K	1/6W	CARBON	
	R618	QRD161J-103	10K	1/6W	CARBON	
	R630	QRD161J-123	12K	1/6W	CARBON	
	R631	QRD161J-103	10K	1/6W	CARBON	
	R701	QRD161J-102	1K	1/6W	CARBON	
	R702	QRD161J-103	10K	1/6W	CARBON	
	R703	QRD161J-473	47K	1/6W	CARBON	
	R704	QRD161J-102	1K	1/6W	CARBON	
	R705	QRD161J-103	10K	1/6W	CARBON	
	R733	QVP4A0B-222		2.2K	VARIABLE	
	R745	QVP4A0B-472		4.7K	VARIABLE	
	R801	QRD161J-272	2.7K	1/6W	CARBON	
	R802	QRD161J-182	1.8K	1/6W	CARBON	
	R803	QRD161J-561	560	1/6W	CARBON	
	R901	QRD161J-103	10K	1/6W	CARBON	
	R902	QRD161J-471	470	1/6W	CARBON	

OTHERS

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EWT011-075	TERMINAL WIRE	
		E11426-002	P.C.BOARD	
		E70516-001	HEAT SINK	
		SBSE3008Z	SCREW	
	J303	EMV7112-003	SOCKET	
	J701	EMV7112-004	SOCKET	
	J801	EMV7112-003	SOCKET	
	L801	EQL3001-180KY	INDUCTOR	
	P401	QMV5004-005K	PULAG ASSY	
	P901	QMV5005-003K	PULAG ASSY	
	S301	QSM1S11-212	MICRO SWITCH	
	S302	QSM1S11-212	MICRO SWITCH	
	S303	ESS2100-001	DETECT SW	
	S304	ESS2100-001	DETECT SW	
	S305	QSS1F22-E01	SLIDE SWITCH	
	S306	ESP0001-007	PUSH SWITCH	
	S801	QSP0301-006	PUSH SWITCH	
	X301	ECX0000-700KS	CERA LOCK	
	PL601	QLP3204-001	LAMP ASSY	
		EWT011-103	TERMINAL WIRE	

Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Area
	E30580-1376A	Instruction Book	1		Except BS
	E30580-1376ABS	Instruction Book	1		BS
	BT20047C	Warranty Card	1		J,XJ,P,PG
	BT20025J	Warranty Card	1		C
	BT20029C	Warranty Card	1		A
	BT20064	Warranty Card	1		G
	BT20060	Warranty Card	1		BS
	BT20066	EEC Agency	1		BS,G
	BT20046B	Service Information	1		J,XJ,P,PG
	BT20044E	Safety Instruction Sheet	1		J,XJ
	BT20071A	Service Center	1		C
	E35497-022	Caution Sheet	1		U,PG
	E35497-021	Caution Sheet	1		P
⚠	E04056	Siemens Plug	1		U,PG
	E72978-001	Sheet	1		
	E66329-001	BP Adaptor	1		
	E66416-003	Envelope	1		J,XJ
	E300196-010	Envelope	1		Except BS
	E300196-010B	Envelope	1		BS

The Marks for Designated Areas

J ..... U.S.A. (with Cartridge)	BS ..... U.K.
XJ ..... U.S.A. (without Cartridge)	P, PG ..... U.S. Military Market
C ..... Canada	G ..... West Germany
E ..... Europe	U ..... Other Countries
A ..... Australia	No Mark indicates all areas
ES ..... Spain	

Packing Materials and Parts Numbers

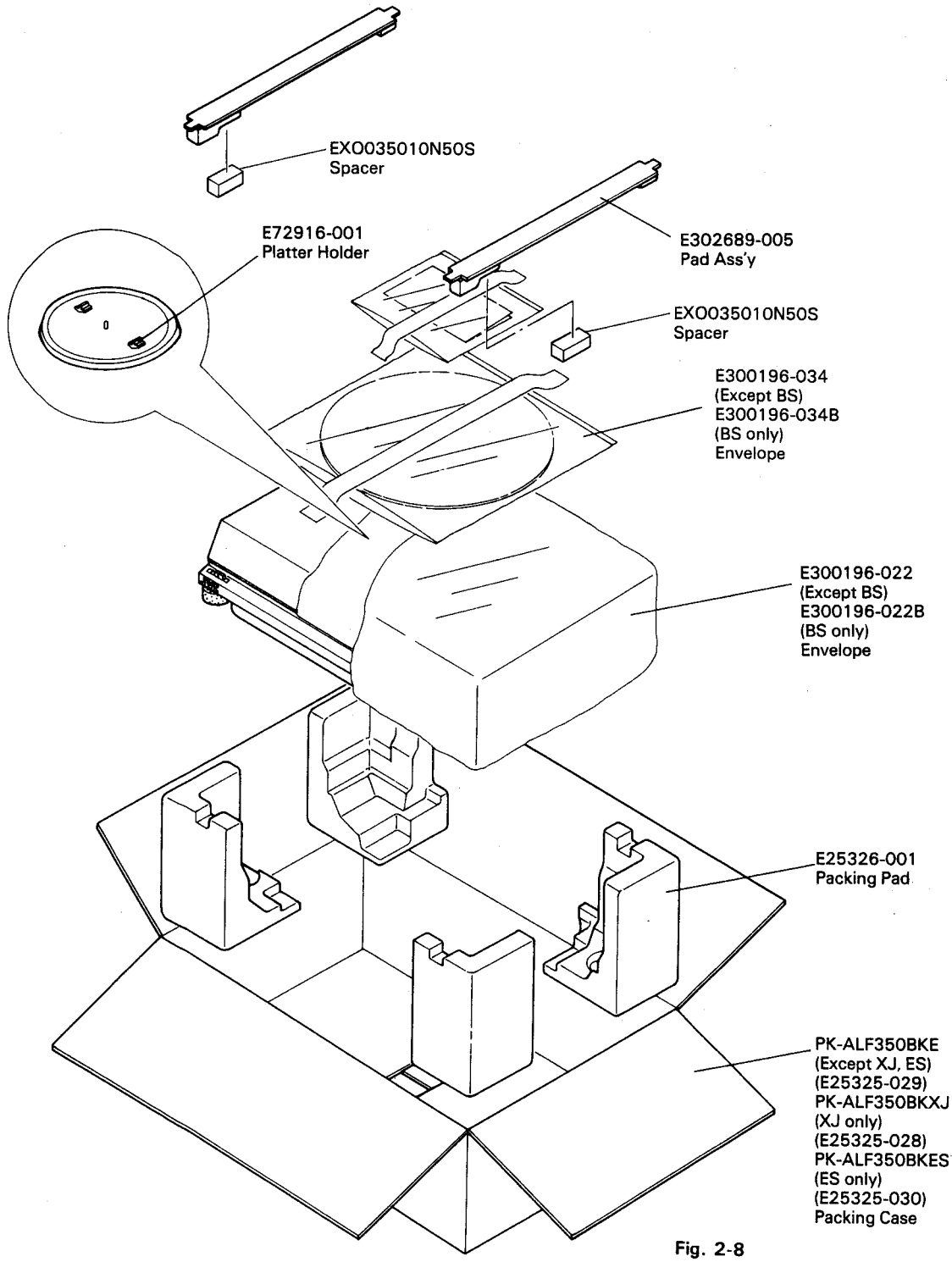


Fig. 2-8

The Marks for Designated Areas			
J	U.S.A. (with Cartridge)	BS	U.K.
XJ	U.S.A. (without Cartridge)	P,PG	U.S. Military Market
C	Canada	G	West Germany
E	Europe	U	Other Countries
A	Australia	No mark indicates all areas	
ES	Spain		